

# **State Board of Refrigeration Contractors**

## **State of North Carolina**



**Examination Packet**

**For**

**Persons applying To Take The Qualifying Examination**

**For A Refrigeration Contractor's License**



# State Board of Refrigeration Contractors

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## **INTRODUCTION**

The State Board of Refrigeration Contractors was created by the North Carolina Legislature to protect the public by taking steps to ensure that refrigeration contractors are competent in their profession. In order to achieve this goal, minimum standards and requirements were established by the Board for entry into the profession. Passing the licensing examination is one of the requirements for obtaining a license as a Refrigeration Contractor.

This is an open book examination. Each applicant may use any books that he or she brings to the examination. The examination is designed to measure how well a candidate has mastered the subjects covered on the General Outline of the examination shown below.

The wording of all questions is straightforward and plain, and there is no intent to mislead. Each question has one correct answer. Therefore, the applicant should read each question and its answer choices thoroughly and carefully. Then select the one answer that appears to be most nearly correct.

In order to pass the qualifying examination, an applicant is required to pass all parts of the examination within the same one-year period and within no more than three consecutive attempts. Each time an applicant takes the examination, he shall take all parts for which he does not have currently valid passing grades. If the applicant fails to pass all parts within one year or within three consecutive attempts (whichever period is shorter), any passing grades for individual parts shall no longer be valid and the applicant must start over by re-taking all parts of the examination.

Applicants are urged to carefully study all of the information contained in this booklet as part of their preparation to take a qualifying examination.

# OUTLINE

## I. COMMERCIAL REFRIGERATION CONTRACTOR

Questions are multiple-choice or true-false. Six and one-half hours are allotted for this examination and it is administered in two sections. You will be given four hours to complete the first section (Parts A, B and C) and two and one-half hours to complete Part D.

PART A: Law, Administrative Code and Safety  
Fifteen (15) questions.

PART B: Equipment, Equipment Performance, Theory and Electrical  
Forty (40) questions.

PART C: Electrical and Mechanical Code  
Twenty (20) questions.

PART D: Plans, Specifications and Estimating  
Twenty-five (25) multiple choice questions. On this part, each applicant is given plans and specifications for a refrigeration installation. The applicant is required to make the take-off of parts and equipment just as if he or she were planning to bid on this job.

## II. INDUSTRIAL REFRIGERATION CONTRACTOR

Questions are multiple-choice or true-false, except on Part D where there are also user-entry questions to type in the results of a calculation. Six and one-half hours are allotted for this examination and it is administered in two sections. You will be given four hours to complete the first section (Parts A, B and C) and two and one-half hours to complete Part D.

PART A: Law and Administrative Code  
Purging, Piping, and Safety  
Twenty-five (25) questions

PART B: Compressors, Evaporators, Condensers, and Controls  
Twenty-five (25) questions

PART C: Ammonia Basics  
Electrical Code  
Twenty-five (25) questions.

PART D: Plans and Specifications  
Twenty-five (25) multiple choice and user entry questions. On this part, each applicant is given plans and specifications for an industrial refrigeration installation. The applicant is required to answer questions and perform calculations based on the plans provided.

### **III. SERVICE REFRIGERATION CONTRACTOR**

Questions are multiple-choice or true-false. This is a four hour examination.

PART A: Law, Administrative Code and Safety  
Fifteen (15) questions.

PART B: Equipment, Equipment Performance, Theory and Electrical  
Forty (40) questions.

PART C: Electrical and Mechanical Code  
Twenty (20) questions.

### **IV. TRANSPORT REFRIGERATION CONTRACTOR**

Questions are multiple-choice or true-false. This is a four hour examination.

PART A: Law, Administrative Code and Safety  
Fifteen (15) questions)

PART B: Equipment, Equipment Performance and Theory  
(includes diagnostic and maintenance)  
Thirty-five (35) questions

PART C: Transport Specific Applications  
Twenty-five (25) questions

# REFERENCES

## **MODERN REFRIGERATION AND AIR CONDITIONING (Commercial and Service Exams)**

Althouse, Turnquist & Bracciano  
Goodheart-Wilcox Co., Inc.  
18604 West Creek Dr.  
Tinley Park, Illinois 60477-6243  
(800) 323-0440  
www.g-w.com

## **AMMONIA REFRIGERATION BASICS (Industrial Exam)**

## **PURGING, PIPING, AND SAFETY (Industrial Exam)**

## **POSITIVE DISPLACEMENT COMPRESSORS (Industrial Exam)**

## **EVAPORATORS, CONDENSERS, AND CONTROLS (Industrial Exam)**

TPC Training Systems  
750 Lake Cook Road  
Buffalo Grove, IL 60089  
(847) 808-4000

## **GENERAL STATUTE 87, ARTICLE 5 (Included in this packet - All Exams)**

State Board of Refrigeration Contractors  
1027 US 70 Highway W, Suite 221  
Garner, NC 27529  
(919) 779-4711

## **NC ADMINISTRATIVE CODE, CHAPTER 60 (Included in this packet - All Exams)**

State Board of Refrigeration Contractors  
1027 US 70 Highway W, Suite 221  
Garner, NC 27529  
(919) 779-4711

## **NATIONAL ELECTRICAL CODE (Commercial, Service, and Industrial Exams)**

N. C. Department of Insurance  
Engineering & Building Codes Division  
322 Chapanoke Rd., Suite 200  
Raleigh, NC 27603  
(919) 661-5880

## **NORTH CAROLINA STATE BUILDING CODE, MECHANICAL CODE (Commercial and Service Exams)**

N. C. Department of Insurance  
Engineering & Building Codes Division  
322 Chapanoke Rd., Suite 200  
Raleigh, NC 27603  
(919) 661-5880

## **TRANSPORT REFRIGERATION STUDY GUIDE FOR TECHNICIANS PREPARING FOR TRANSPORT REFRIGERATION EXAMINATION (Transport Exam)**

State Board of Refrigeration Contractors  
1027 US 70 Highway W, Suite 221  
Garner, NC 27529  
(919) 779-4711

# **BEFORE THE EXAMINATION**

## **Location of the Examination**

People found eligible to sit for the examination will receive an examination confirmation notice. That notice will state the place, date and time of their examination. All refrigeration contractor examinations are conducted in the Board office in Garner.

We recommend that you locate the testing site before the morning of the examination. Allow time on the morning of the examination to get to the examination location, including time for traffic congestion. Applicants who arrive late for the examination will not be allowed to test and will have to reschedule. A map showing the location of the Board office is included at the end of this booklet.

## **Special Accommodations for Candidates with Disabilities**

The State Board of Refrigeration Contractors wants to ensure that all qualified individuals with a disability have the opportunity to take the licensing examination.

Wheelchair access is available at the testing site. Qualified candidates with sensory, mental or physical disabilities which would prevent them from taking the examination under standard conditions should contact the Board Office two weeks prior to their scheduled examination.

## **Canceling An Examination Appointment**

You may cancel and reschedule an examination appointment without forfeiting your fee if your cancellation notice is received 2 business days before the scheduled examination date.

## **Missed Appointment or Late Cancellation**

Your registration will be invalid, and you will not be able to take the examination as scheduled, and you will forfeit your examination fee, if you:

- 1) Do not cancel your appointment 2 business days before the scheduled exam date;
- 2) Do not appear for your exam appointment;
- 3) Arrive after exam start time;
- 4) Do not present proper identification when you arrive for the exam.

## **Examination Site Closed For An Emergency**

In the event that severe weather or another emergency forces the closure of the examination site on a scheduled examination date, your examination will be rescheduled. Board staff will attempt to contact you in this situation. However, you may check the status of your exam schedule by calling 919-669-5299. Every effort will be made to reschedule your examination at a convenient time as soon as possible.



## **AT THE EXAMINATION**

### **What to bring to the Examination**

- 1) Confirmation notice (contains time and location of Examination). You will not be admitted without it.
- 2) Identification. Must bear both your picture and signature such as driver's license with photograph, a passport, a state identification card or a signed, notarized photograph.
- 3) A watch. No one will be permitted to work beyond the four (4) hour limit established for the morning session or the two and one-half (2 ½) hour limit for the afternoon session.
- 4) Only non-programmable calculators that are, silent battery-operated, do not have paper tape printing capabilities, and do not have a keyboard containing the alphabet will be allowed in the examination site.
- 5) Any reference books.

NOTE: Candidates will not be permitted to share books or equipment during the examination. All candidates must provide their own books and/or equipment.

### **Visitors at the Examination Site**

Visitors will not be permitted in the examination room. If you need to meet family members or other persons after the examination, you should arrange to meet them in the lobby of the Board office. Candidates will not be allowed to visit with, or exchange messages with others during the examination.

### **Security Procedures**

No conversing or any other form of communication among candidates is permitted once you enter the exam area.

Cell phones, pagers, and children are not allowed in the exam center. No personal items are to enter the testing center. SBRC will not be responsible for any personal items and suggests that you leave them locked in the trunk of your car.

### **Conduct During the Examination**

You are expected to conduct yourself in a professional manner during the examination. Any candidate engaging in conduct which subverts or attempts to subvert the examination process may be dismissed from the exam or may have scores withheld and/or declared invalid:

- 1) You may not use cameras, tape recorders, beepers, or electronic recording or transmitting devices in the examination room.
- 2) You may not take notes or scratch paper from the examination room.
- 3) You may not remove any examination materials from the examination room.
- 4) You may not reproduce or reconstruct any portion of the exam or aid others in doing so.

- 5) The staff cannot answer any questions about the content of any examination questions.
- 6) If you leave the exam room and return, you may not consult with any other exam applicant or anyone else regarding the content of the exam during your absence.
- 7) Applicants who arrive late for the examination will not be allowed to test and will have to reschedule their examination.
- 8) You may be dismissed from the examination room and/or may be denied a license for irregularities including, but not limited to:
  - a) Disrupting other candidates
  - b) Attempting to copy answers from another candidate
  - c) Allowing your answers to be copied
  - d) Impersonating another exam candidate
  - e) Failing to follow the examination supervisor's instructions
  - f) Copying or removing examination materials

### **Test Taking Skills**

This is an open book examination. That is, each candidate may use any books that he or she brings to the examination. The examination is designed to measure how well a candidate has mastered the subjects covered in the general outline of the applicant information booklet mailed to you with your application.

Read all instructions carefully and listen carefully to oral instructions. Ask questions about anything that is unclear.

Be sure to mark an answer for all questions, even the ones about which you may be unclear. There is no penalty for guessing, and your score is based upon the total number of questions you answer correctly.

The wording of all questions is straightforward and plain and there is no intent to mislead. Each question has one correct answer. Therefore, the candidate should consider each question and its answer choices thoroughly and carefully. Then select the one answer that appears to be most nearly correct.

### **Smoking Policy**

Smoking is not allowed in the Board office. It is a smoke-free facility.

### **Dressing for the Examination**

Dress comfortably. Many individuals have different preferences as to an ideal temperature. Also, we have little control over the heat and air conditioning. We recommend you bring a sweater or jacket.

## Description of Examination Procedure

- 1) Commercial and Industrial Refrigeration Examinations.  
This is a six and one-half (6½) hour examination and is administered in two sections: one during a four (4) hour morning session and one during a two and one-half hour (2½) hour afternoon session. Parts “A”, “B” and “C” are completed in the morning session and Part “D” in the afternoon session.  
Paragraph 87-58(d) of the refrigeration licensing laws states that one of the areas to be covered shall be the analysis of plans and specifications and estimating cost. Part “D” of this examination covers this area and is done in the afternoon session.
- 2) Service and Transport Refrigeration Examinations.  
This is a four hour examination, beginning at 9:00 A.M. and ending at 1:00 P.M.
- 3) General. On the morning of the examination, you will present your identification and confirmation notice and be admitted to the examination room. The examination proctor will give specific instructions regarding the examination and administration procedures.  
If you finish before time is called, you may notify a staff person. Once you have turned in your materials, you may not retrieve them, even if there is additional testing time remaining.

## Sample Questions

The following questions are intended to help you become familiar with some of the types of questions you may find on the examination. The questions are the multiple-choice type, and you are to select the one best answer of those presented. These sample questions do not represent the full range of content or difficulty levels contained in the actual examination.

- 1) If the specific gravity of copper is 8.92, it weighs:
  - (a) 287 lb/cu ft
  - (b) 486 lb/cu ft
  - (c) 4.7 lb/cu ft
  - (d) 557 lb/cu ft
- 2) Frosting back of suction line could be caused by:
  - (a) Thermal bulb loose from suction line
  - (b) TEV stuck open
  - (c) Dirty evaporator
  - (d) Any of the above
- 3) The primary and secondary windings in a transformer:
  - (a) Are wired in parallel
  - (b) Are wired in series
  - (c) Are not connected electrically
  - (d) Are connected with a solenoid switching device

Please review the copy of the answer sheet included at the end of this booklet.

## **AFTER THE EXAMINATION**

### **Passing Scores and Score Reporting**

The North Carolina State Board of Refrigeration Contractors establishes the required passing score for the North Carolina refrigeration contractor examination. In order to pass the license examination, candidates must obtain a minimum score of 70% on each of the parts.

Candidates will be notified of the results of their examination immediately following completion of the examination.

### **Examination Review**

If you fail the refrigeration examination, you will be given the opportunity to review all incorrect answers immediately following the morning and afternoon sessions of your examination.

### **Licenses**

Each candidate who passes all portions of the examination will be eligible for a license to practice. In order to receive a license, you will need to pay the first year's annual dues of \$80. Any questions regarding licenses should be directed to the board office at 1027 Highway 70 West, Suite 221, Garner, NC 27529.

### **Re-Examination Procedure**

Each candidate who fails an examination is notified of his scores and the parts of the examination failed. Anyone passing one or more parts of the examination shall be allowed to retake the unpassed parts without retaking the entire examination. An applicant is required to pass all parts of the examination within the same one year period and within no more than three consecutive attempts.

A person who fails an examination must wait a period of five (5) business days from the date he/she last tested before being eligible to retest. You will be given a re-examination application before leaving the testing site.

# North Carolina General Statutes

## Article 5

### Refrigeration Contractors

#### **§ 87-52. State Board of Refrigeration Contractors; appointment; term of office.**

(a) For the purpose of carrying out the provisions of this Article, the State Board of Refrigeration Contractors is created, consisting of seven members appointed by the Governor to serve seven-year staggered terms. The Board shall consist of:

- (1) One member who is a wholesaler or a manufacturer of refrigeration equipment.
- (2) One member from an accredited engineering school located in this State.
- (3) One member from the field of public health with an environmental science background from an accredited college or university located in this State.
- (4) Two members who are licensed refrigeration contractors.
- (5) One member who has no ties with the construction industry to represent the interest of the public at large.
- (6) One member with an engineering background in refrigeration.

(b) The term of office of one member shall expire each year. Vacancies occurring during a term shall be filled by appointment of the Governor for the unexpired term. Whenever the term "Board" is used in this Article, it means the State Board of Refrigeration Contractors. No Board member shall serve more than one complete consecutive term. (1955, c. 912, s. 1; 1959, c. 1206, s. 2; 1973, c. 476, s. 128; 1979, c. 712, s. 1; 1995, c. 376, s. 1; 2017-10, s. 2.7(a).)

#### **§ 87-53. Removal, qualifications and compensation of members; allowance for expenses.**

The Governor may remove any member of the Board for misconduct, incompetency or neglect of duty. Each member of the Board shall be a resident of this State at the time of his appointment. Payment of compensation and reimbursement of expenses of Board members shall be governed by G.S. 93B-5. (1955, c. 912, s. 2; 1969, c. 445, s. 9; 1979, c. 712, ss. 2, 7.)

#### **§ 87-54. Organization meeting; officers; seal; rules.**

The Board shall within 30 days after its appointment meet in the City of Raleigh and organize, and shall elect a chairman and secretary and treasurer, each to serve for one year. Thereafter said officer shall be elected annually. The secretary and treasurer shall give bond approved by the Board for the faithful performance of his duties, in such sum as the Board may, from time to time, determine. The Board shall have a common seal, shall formulate rules to govern its actions, and is hereby authorized to employ such personnel as it may deem necessary to carry out the provisions of this Article. (1955, c. 912, s. 3.)

#### **§ 87-55. Regular and special meetings; quorum.**

The Board after holding its first meeting, as hereinbefore provided, shall thereafter hold at least two regular meetings each year. Special meetings may be held at such times and places as the bylaws and/or rules of the Board provide; or as may be required in carrying out the provisions hereof. A quorum of the Board shall consist of four members. (1955, c. 912, s. 4.)

**§ 87-56. Record of proceedings and register of applicants; reports.**

The Board shall keep a record of its proceedings and a register of all applicants for examination, showing the date of each application, the name, age and other qualifications, places of business and residence of each applicant. The books and records of the Board shall be prima facie evidence of the correctness of the contents thereof. On or before the first day of March of each year the Board shall submit to the Governor a report of its activities for the preceding year, and file with the Secretary of State a copy of such report, together with a statement of receipts and expenditures of the Board attested by the chairman and secretary. (1955, c. 912, s. 5.)

**§ 87-57. License required of persons, firms or corporations engaged in the refrigeration trade.**

In order to protect the public health, safety, morals, order and general welfare of the people of this State, all persons, firms or corporations, whether resident or nonresident of the State of North Carolina, before engaging in refrigeration business or contracting, as defined in this Article, shall first apply to the Board and shall procure a license. (1955, c. 912, s. 6.)

**§ 87-58. Definitions; contractors licensed by Board; examinations.**

(a) The provisions of this Article shall not repeal any wording, phrase, or paragraph as set forth in Article 2 of this Chapter. The following definitions apply in this Article:

- (1) Commercial refrigeration contractor. – All persons, firms, or corporations engaged in the installation, maintenance, servicing and repairing of refrigerating machinery, equipment, devices and components relating thereto.
- (2) Industrial refrigeration contractor. – All persons, firms, or corporations engaged in commercial refrigeration contracting with the use of ammonia as a refrigerant gas.
- (3) Refrigeration service contractor. – All persons, firms, or corporations engaged in the maintenance, servicing, and repairing of refrigerating machinery, equipment, devices, and components relating thereto.
- (4) Transport refrigeration contractor. – All persons, firms, or corporations engaged in the business of installation, maintenance, repairing, and servicing of transport refrigeration.

(a1) This Article shall not apply to any of the following:

- (1) The installation of self-contained commercial refrigeration units equipped with an Original Equipment Manufacturer (OEM) molded plug that does not require the opening of service valves.
- (2) The installation and servicing of domestic household self-contained refrigeration appliances equipped with an OEM molded plug connected to suitable receptacles which have been permanently installed and do not require the opening of service valves.
- (3) Employees of persons, firms, or corporations or persons, firms or corporations, not engaged in refrigeration contracting as herein defined, that install, maintain and service their own refrigerating machinery, equipment and devices.
- (4) Any person, firm or corporation engaged in the business of selling, repairing and installing any comfort cooling devices or systems.
- (5) The replacement of lamps, fuses, and door gaskets.

(b) The Board shall establish and issue the following licenses:

- (1) A Class I license shall be required for any person engaged in the business of commercial refrigeration contracting.
- (2) A Class II license shall be required for any person engaged in the business of industrial refrigeration contracting.
- (3) A Class III license shall be required for any person engaged in the business of refrigeration service contracting.
- (4) A Class IV license shall be required for any person engaged in the business of transport refrigeration contracting.

(b1) Repealed by Session Laws 2017-10, s. 2.7(a), effective January 1, 2018, and applicable to applications submitted and Board membership appointments on or after that date.

(c) Any person, firm or corporation who for valuable consideration engages in the refrigeration business or trade as herein defined shall be deemed and held to be in the business of refrigeration contracting.

(d) In order to protect the public health, comfort and safety, the Board shall prescribe the standard of experience to be required of an applicant for license and shall give an examination designed to ascertain the technical and practical knowledge of the applicant concerning the analysis of plans and specifications, estimating cost, fundamentals of installation and design as they pertain to refrigeration; and as a result of the examination, the Board shall issue a certificate of license in refrigeration to applicants who pass the required examination and a license shall be obtained in accordance with the provisions of this Article, before any person, firm or corporation shall engage in, or offer to engage in the business of refrigeration contracting. The Board shall prescribe standards for all license classifications.

Each application for examination shall be accompanied by a check, post-office money order or cash in the amount of the annual license fee required by this Article. Regular examinations shall be given in the Board's office by appointment.

(e) Repealed by Session Laws 1979, c. 843, s. 1.

(f) Licenses Granted without an Examination. – Persons who had an established place of business prior to July 1, 1979, and who produce satisfactory evidence that they are engaged in the refrigeration business as herein defined in any city, town or other area in which Article 5 of Chapter 87 of the General Statutes did not previously apply shall be granted a certificate of license, without examination, upon application to the Board and payment of the license fee, provided completed applications shall be made prior to June 30, 1981.

(g) The current license issued in accordance with the provisions of this Article shall be posted in the business location of the licensee, and its number shall appear on all proposals or contracts and requests for permits issued by municipalities.

(h) A transport refrigeration contractor having an established place of business doing transport refrigeration contracting prior to October 1, 1995, shall be granted a transport refrigeration contracting specialty license, without examination, if the person produces satisfactory evidence the person is engaged in transport refrigeration contracting, pays the required license fee, and applies to the Board prior to January 1, 1997. The current specialty license shall be posted in accordance with subsection (g) of this section.

(i) Nothing in this Article shall relieve the holder of a license issued under this section from complying with the building or electrical codes, statutes, or ordinances of the State or of any county or municipality or from responsibility or liability for negligent acts in connection with refrigeration contracting work. The Board shall not be liable in damages, or otherwise, for the negligent acts of licensees.

(j) The Board in its discretion upon application may grant a reciprocal license to a person holding a valid, active substantially comparable license from another jurisdiction, but only to the extent the other jurisdiction grants reciprocal privileges to North Carolina licensees.

(k) Upon application and payment of the fee for license renewal provided in G.S. 87-64, the Board shall issue a certificate of license to any licensee whose business activities require a Class I or Class II license if that licensee had an established place of business and was licensed pursuant to this Article prior to January 1, 2018. (1955, c. 912, s. 7; 1959, c. 1206, s. 1; 1979, c. 843, ss. 1, 2; 1987 (Reg. Sess., 1988), c. 1082, s. 5; 1989, c. 770, s. 13; 1995, c. 376, s. 2; 1998-216, ss. 1, 2, 2.1; 2009-333, ss. 1, 2; 2017-10, s. 2.7(a).)

#### **§ 87-59. Revocation or suspension of license for cause.**

(a) The Board shall have power to revoke or suspend the license of any refrigeration contractor who is guilty of any fraud or deceit in obtaining a license, or who fails to comply with any provision or requirement of this Article, or for gross negligence, incompetency, or misconduct, in the practice of or in carrying on the business of a refrigeration contractor as defined in this Article. Any person may prefer charges of fraud, deceit, gross negligence, incompetency, misconduct, or failure to comply with any provision or requirement of this Article, against any refrigeration contractor who is licensed under the provisions of this Article. All charges shall be in writing and verified by the complainant, and shall be heard and determined by the Board in accordance with the provisions of Chapter 150B of the General Statutes.

(b) The Board shall adopt and publish rules and regulations, consistent with the provisions of this Article and Chapter 150B of the General Statutes, governing the suspension and revocation of licenses.

(c) The Board shall establish and maintain a system whereby detailed records are kept regarding complaints against each licensee. This record shall include, for each licensee, the date and nature of each complaint, investigatory action taken by the Board, any findings of the Board, and the disposition of the matter.

(d) In a case in which the Board is entitled to convene a hearing to consider a charge under this section, the Board may accept an offer to compromise the charge, whereby the accused shall pay to the Board a penalty not to exceed one thousand dollars (\$1,000). The funds derived from the penalty shall be remitted to the Civil Penalty and Forfeiture Fund in accordance with G.S. 115C-457.2.

(e) All records, papers, and other documents containing information collected and compiled by the Board, or its members or employees, as a result of investigations, inquiries, or interviews conducted in connection with a licensing or disciplinary matter, shall not be considered public records within the meaning of Chapter 132 of the General Statutes. (1955, c. 912, s. 8; 1973, c. 1331, s. 3; 1979, c. 712, s. 3; 1989, c. 770, s. 14; 1995, c. 376, s. 3; 2009-333, ss. 3, 4.)

#### **§ 87-60. Reissuance of revoked licenses; replacing lost or destroyed licenses.**

The Board may in its discretion reissue license to any person, firm or corporation whose license was revoked if a majority of the Board votes in favor of such reissuance for reasons deemed sufficient by the Board. A new certificate of registration to replace any license which may be lost or destroyed may be issued subject to the rules and regulations of the Board. (1955, c. 912, s. 9; 1998-216, s. 3.)

#### **§ 87-61. Violations made misdemeanor; employees of licensees excepted.**

Any person, firm or corporation who shall engage in or offer to engage in, or carry on the business of refrigeration contracting as defined in this Article, without first having been licensed to engage in the



business, or businesses, as required by the provisions of this Article; or any person, firm or corporation holding a refrigeration license under the provisions of this Article who shall practice or offer to practice or carry on any type of refrigeration contracting not authorized by the license; or any person, firm or corporation who shall give false or forged evidence of any kind to the Board, or any member thereof, in obtaining a license, or who shall falsely impersonate any other practitioner of like or different name, or who shall use an expired or revoked license, or who shall violate any of the provisions of this Article, shall be guilty of a Class 3 misdemeanor. The Board may, in its discretion, use its funds to defray the costs and expenses, legal or otherwise, in the prosecution of any violation of this Article. Employees, while working under the supervision and jurisdiction of a person, firm or corporation licensed in accordance with the provisions of this Article, shall not be construed to have engaged in the business of refrigeration contracting. (1955, c. 912, s. 10; 1993, c. 539, s. 607; 1994, Ex. Sess., c. 24, s. 14(c); 1995, c. 376, s. 4; 2009-333, s. 5.)

**§ 87-61.1. Board may seek injunctive relief; retain counsel.**

(a) Whenever it appears to the Board that any person, firm or corporation is violating any of the provisions of this Article or of the rules and regulations promulgated under this Article, the Board may apply to the superior court for a restraining order and injunction to restrain the violation; and the superior courts have jurisdiction to grant the requested relief, irrespective of whether or not criminal prosecution has been instituted or administrative sanctions imposed by reason of the violation.

(b) The Board may employ or retain legal counsel for matters and purposes the Board deems fit and proper, subject to G.S. 114-2.3. (1979, c. 712, s. 4; 2009-333, s. 6.)

**§ 87-62. Only one person in partnership or corporation need have license.**

(a) A corporation or partnership may engage in the business of refrigeration contracting if one or more persons connected with the corporation or partnership is registered and licensed as herein required, and the licensed person executes all contracts, exercises general supervision over the work done thereunder and is responsible for compliance with all the provisions of this Article. The Board may determine the number of businesses and the proximity of the businesses one to another over which the licensed person may be responsible.

(b) For purposes of this section, the licensee's connection to the corporation or partnership shall be in the form of a written contract that is executed prior to the corporation or partnership engaging in refrigeration contracting.

(c) Nothing in this Article shall prohibit any employee from becoming licensed pursuant to the provisions thereof. (1955, c. 912, s. 11; 1998-216, s. 4.)

**§ 87-63. License fees payable in advance; application of.**

All license fees shall be paid in advance as hereafter provided to the secretary and treasurer of the Board and by him held as a fund for the use of the Board. The compensation and expenses of the members of the Board as herein provided, the salaries of its employees, and all expenses incurred in the discharge of its duties under this Article shall be paid out of such fund, upon the warrant of the chairman and secretary and treasurer: Provided, upon the payment of the necessary expenses of the Board as herein set out, and the retention by it of twenty-five per centum (25%) of the balance of funds collected hereunder the residue, if any, shall be paid to the State Treasurer. (1955, c. 912, s. 12.)

**§ 87-63.1. Ownership of real property; equipment; liability insurance.**

(a) The Board shall have the power to acquire, hold, rent, encumber, alienate, and otherwise deal with real property in the same manner as a private person or corporation, subject only to the approval of the Governor and the Council of State. Collateral pledged by the Board for an encumbrance is limited to the assets, income, and revenues of the Board.

(b) The Board may purchase or rent equipment and supplies and purchase liability insurance or other insurance to cover the activities of the Board, its operations, or its employees. (2009-333, s. 7.)

**§ 87-64. Examination and license fees; annual renewal.**

(a) Each applicant for a license by examination shall pay to the Board of Refrigeration Contractors a nonrefundable examination fee in an amount to be established by the Board not to exceed the sum of one hundred dollars (\$100.00).

(b) The license of every person licensed under the provisions of this statute shall be annually renewed. Effective January 1, 2012, the Board may require, as a prerequisite to the annual renewal of a license, that licensees complete continuing education courses in subjects related to refrigeration contracting to ensure the safe and proper installation of commercial and transport refrigeration work and equipment. On or before November 1 of each year the Board shall cause to be mailed an application for renewal of license to every person who has received from the Board a license to engage in the refrigeration business, as heretofore defined. On or before January 1 of each year every licensed person who desires to continue in the refrigeration business shall forward to the Board a nonrefundable renewal fee in an amount to be established by the Board not to exceed eighty dollars (\$80.00) together with the application for renewal. Upon receipt of the application and renewal fee the Board shall issue a renewal certificate for the current year. Failure to renew the license annually shall automatically result in a forfeiture of the right to engage in the refrigeration business.

(c) Any licensee who allows the license to lapse may be reinstated by the Board upon payment of a nonrefundable late renewal fee in an amount to be established by the Board not to exceed one hundred sixty dollars (\$160.00) together with the application for renewal. Any person who fails to renew a license for two consecutive years shall be required to take and pass the examination prescribed by the Board for new applicants before being licensed to engage further in the refrigeration business. (1955, c. 912, s. 13; 1969, c. 314; 1979, c. 843, ss. 3, 4; 1998-216, s. 5; 2009-333, s. 8; 2017-10, s. 2.7(a).)

**§ 87-64.1. Public awareness program.**

The Board shall establish and implement a public awareness program to inform the general public of the purpose and function of the Board. (1979, c. 712, s. 4.)

**NORTH CAROLINA ADMINISTRATIVE CODE**

**TITLE 21**

**CHAPTER 60 - BOARD OF REFRIGERATION CONTRACTORS**

**SECTION .0100 - ORGANIZATION AND DEFINITIONS**

**21 NCAC 60 .0101 STRUCTURE OF BOARD**

*History Note: Authority G.S. 87-52; 87-54;  
Eff. February 1, 1976;  
Readopted Eff. April 17, 1978;  
Amended Eff. April 1, 1989; December 1, 1987;  
Repealed Eff. December 1, 1993.*

**21 NCAC 60 .0102 OFFICE OF BOARD**

- (a) The Board's office and mailing address is 1027 US 70 Highway West, Suite 221, Garner, North Carolina 27529.
- (b) The Board's website is <http://www.refrigerationboard.org>.

*History Note: Authority G.S. 87 54;  
Eff. February 1, 1976;  
Readopted Eff. April 17, 1978;  
Amended Eff. June 1, 2015; April 1, 2015; September 1, 2011; August 1, 2004; July 1, 2000; August 1, 1995; December 1, 1993; October 1, 1994;  
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 19, 2015;  
Amended Eff. January 1, 2018.*

**21 NCAC 60 .0103 RULE-MAKING AND ADMINISTRATIVE HEARING PROCEDURES**

*History Note: Authority G.S. 87-54; 150B-21.6; 150B-38(h);  
Eff. February 1, 1981;  
Amended Eff. October 1, 1995; April 1, 1989; May 1, 1988; October 1, 1984;  
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 19, 2015;  
Repealed Eff. January 1, 2018.*

**21 NCAC 60 .0104 RESERVED FOR FUTURE CODIFICATION**

**21 NCAC 60 .0105 REFRIGERATION LAW PLUG-IN DEVICES**

*History Note: Authority G.S. 87-54; 87-58;  
Recodified from 21 NCAC 60 .0303 Eff. January 13, 1989;  
Repealed Eff. November 1, 1995.*

## SECTION .0200 - EXAMINATIONS

### 21 NCAC 60 .0201 DATES OF BOARD MEETINGS

*History Note: Authority G.S. 87-54; 87-58;  
Eff. February 1, 1976;  
Readopted Eff. April 17, 1978;  
Amended Eff. April 1, 1989; October 1, 1984; February 1, 1981;  
Repealed Eff. August 1, 2004.*

### 21 NCAC 60 .0202 APPLICATION FOR EXAMINATION 21 NCAC 60 .0203 FORM

*History Note: Authority G.S. 87-54; 87-64; 150A-11(1);  
Eff. February 1, 1976;  
Readopted Eff. April 17, 1978;  
Amended Eff. February 1, 1981;  
Repealed Eff. October 1, 1984.*

### 21 NCAC 60 .0204 SCORING EXAMINATIONS

*History Note: Authority G.S. 87-54; 87-58;  
Eff. February 1, 1976;  
Readopted Eff. April 17, 1978;  
Amended Eff. April 1, 1997; August 1, 1995; October 1, 1984;  
Repealed Eff. August 1, 2004.*

### 21 NCAC 60 .0205 RENEWAL AND REINSTATEMENT FEES

*History Note: Authority G.S. 87-54; 87-64;  
Eff. October 1, 1984;  
Repealed Eff. May 1, 1988.*

### 21 NCAC 60 .0206 EXAMINATION APPLICATION DULY FILED

*History Note: Authority G.S. 87-54; 87-58;  
Eff. October 1, 1984;  
Repealed Eff. January 1, 2018*

### 21 NCAC 60 .0207 REQUIREMENTS FOR EXAMINATION APPLICANTS

(a) Applicants requesting to take a refrigeration examination in accordance with Rule .0213 of this Chapter shall:

- (1) Obtain 4,000 hours of refrigeration experience relevant to the classification of licensure desired prior to filing the application. Up to one-half of the experience may be in technical training related to the field of refrigeration contracting; and

- (2) File with the Board an application on a form provided by the Board together with the non-refundable examination fee as set forth in Rule .0209 of this Section. The form may be obtained on the Board's website (www.refrigerationboard.org) or by requesting a copy from the Board office. The application shall require the following:
- (A) The Social Security Number of the applicant;
  - (B) The applicant's contact information;
  - (C) The name of the business under which licensee will be operating, if any;
  - (D) The license classification desired;
  - (E) Information indication whether the applicant has any disciplinary history with any other occupational licensing board or agency;
  - (F) Record of refrigeration experience and education; and
  - (G) Supervisor(s) statement verifying experience.
- (b) Applicants who pass the examination shall receive a certificate issued by the Board bearing his or her license number. The license shall not be assigned or transferred to another individual.
- (c) An individual holding a valid transport or service contractor refrigeration license shall be eligible to sit for the commercial refrigeration examination upon filing with the Board an application as required in Paragraph (a) of this Rule.
- (d) An applicant may be licensed in more than one classification of refrigerating contracting provided the applicant meets the qualifications for the classifications as set forth in this Rule, including passing the examinations for the classifications desired.

*History Note: Authority G.S. 93B-14; 87-54; 87-58;  
 Eff. October 1, 1984;  
 Amended Eff. August 1, 2004, July 1, 2000; April 1, 1997; December 1, 1993; April 1, 1989; September 1, 1988;  
 Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 19, 2015;  
 Amended Eff. January 1, 2018.*

**21 NCAC 60 .0208 EXAMINATION REVIEW**

An applicant who fails an examination or any portion of the examination shall have the opportunity to review any incorrect answers immediately following the examination.

*History Note: Authority G.S. 87-54; 87-58(d); 93B-8(c);  
 Eff. May 1, 1988;  
 Amended Eff. August 1, 2004;  
 Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 19, 2015.*

**21 NCAC 60 .0209 FEES**

Fees shall be set as follows:

- (1) Examination application -- \$100.00;
- (2) License renewal -- \$80.00; and
- (3) License reinstatement -- \$120.00.

*History Note: Authority G.S. 54; 87-58(d); 87-64;*

*Eff. May 1, 1989;*  
*Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff.*  
*September 19, 2015;*  
*Amended Eff. January 1, 2018.*

## **21 NCAC 60 .0210 SPECIAL EXAMINATION**

*History Note: Authority G.S. 87-54; 87-58(d); 93B-8(c);*  
*Eff. December 1, 1993;*  
*Repealed Eff. August 1, 2004.*

## **21 NCAC 60 .0211 CERT REQUIREMENTS OF EPA: ISSUANCE OF CERT LICENSES BY BOARD**

- (a) All licensed refrigeration contractors and technicians as defined in 40 CFR 82.161 who handle refrigerants as stated in the Act and regulations must be certified by an EPA-Approved Technician's Certification Program effective November 14, 1994.
- (b) The State Board of Refrigeration Examiners shall issue a license or certification to contractors and technicians who can document successful completion of an EPA-Approved Course and Examination.

*History Note: Authority G.S. 87-52; 87-54; 87-58; 42 U.S.C. 7671g(a); 40 C.F.R. 82.161;*  
*Eff. February 1, 1994;*  
*Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff.*  
*September 19, 2015.*

## **21 NCAC 60 .0212 QUALIFYING EXAMINATIONS**

*History Note: Authority G.S. 87-54; 87-58;*  
*Eff. August 1, 2004;*  
*Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff.*  
*September 19, 2015;*  
*Repealed Eff. January 1, 2018.*

## **21 NCAC 60 .0213 EXAMINATIONS**

- (a) Upon approval to take an examination in accordance with Rule .0207 of this Chapter, the Board shall schedule and notify the approved applicant of the date, time, and place of the examination.
- (b) Refrigeration Contractors Examinations shall be divided as follows:
- (1) Commercial and Industrial shall be divided into four parts; and
  - (2) Service and Transport refrigeration shall be divided into three parts.
- (c) All examinations shall be written or computer based.
- (d) In order to pass the examination, an applicant shall obtain a grade of at least 70 percent of each part. An applicant shall pass all parts of the examination within the same one year period and within no more than three consecutive attempts. Each time an applicant takes the examination, the applicant shall take all parts for which he or she does not have passing grades. If the applicant fails to pass all parts within one year or within three consecutive attempts (whichever period is shorter), any passing grades for individual parts shall no longer be valid and the applicant shall retake all parts of the examination.

- (e) An applicant who fails an examination must wait a period of five business days from the date he or she last failed an examination before he or she will be eligible to take another examination.
- (f) Each applicant who fails an examination shall be notified of his or her scores and the parts of the examination he or she failed.
- (g) An applicant who fails to appear at a scheduled examination shall have the no show count toward the three attempts described in Paragraph (d) of this Rule unless notice is given five business days prior to the scheduled examination.
- (h) If an applicant files an application for examination that is approved, and takes and fails the examination, his or her verification of refrigeration experience shall be kept and shall be sufficient for taking any future examination, provided he or she files another application accompanied by the required fee as set forth in these Rules.

*History Note: Authority G.S. 87-54; 87-58;*

*Eff. August 1, 2004;*

*Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 19, 2015;*

*Amended Eff. January 1, 2018.*

## **21 NCAC 60 .0214 LICENSURE FOR MILITARY-TRAINED APPLICANT; LICENSURE FOR MILITARY SPOUSE**

(a) Licensure for a military-trained applicant. Upon receipt of a request for licensure pursuant to G.S. 93B-15.1 from a military-trained applicant, the Board shall issue a license to the applicant who satisfies the following conditions:

- (1) submits an Application for License to Practice Refrigeration Contracting, as set forth in Rule .0206 of this Section. The application is available on the website at <http://www.refrigerationboard.org/applytotakeexam/application>;
- (2) submits a license fee in accordance with G.S. 87-64 and Rule .0209 of this Section;
- (3) provides documentation to satisfy conditions set out in G.S. 93B-15.1(a)(1) and (2), as set forth on <http://refrigerationboard.org/applytotakeexam/military.html>; and
- (4) provides documentation that the applicant has not committed any act in any jurisdiction that would constitute grounds for refusal, suspension, or revocation of a license in North Carolina at the time the act was committed.

(b) Licensure for a military spouse. Upon receipt of a request for licensure pursuant to G.S. 93B-15.1 from a military spouse, the Board shall issue a license to the applicant who satisfies the following conditions:

- (1) submits an Application for License to Practice Refrigeration Contracting, as set forth in Rule .0206 of this Section. The application is available on the website at <http://www.refrigerationboard.org/applytotakeexam/application>;
- (2) submits a license fee in accordance with G.S. 87-64 and Rule .0209 of this Section;
- (3) submits written documentation demonstrating that the applicant is married to an active member of the U.S. military;
- (4) provides documentation to satisfy conditions set out in G.S. 93B-15.1(b)(1) and (2), as set forth on <http://refrigerationboard.org/applytotakeexam/military.html>;
- (5) provides documentation that the applicant has not committed any act in any jurisdiction that would constitute grounds for refusal, suspension, or revocation of a license in North Carolina at the time the act was committed; and

- (6) is in good standing and has not been disciplined by the agency that had jurisdiction to issue the license, certification, or permit.

*History Note: Authority G.S. 93B-15.1;  
Eff. February 1, 2015.*

## **SECTION .0300 - LICENSES AND FEES**

### **21 NCAC 60 .0301 REGISTER OF LICENSEES**

### **21 NCAC 60 .0302 DESCRIPTION OF FORMS**

*History Note: Authority G.S. 87-54; 150B-11(1);  
Eff. February 1, 1976;  
Readopted Eff. April 17, 1978;  
Amended Eff. October 1, 1984; February 1, 1981;  
Repealed Eff. May 1, 1988.*

### **21 NCAC 60 .0303 REFRIGERATION LAW PLUG-IN DEVICES**

*History Note: Authority G.S. 87-54; 87-58;  
Eff. February 1, 1976;  
Readopted Eff. April 17, 1978;  
Amended Eff. May 1, 1988; October 1, 1984;  
Recodified to Rule .0105 Eff. January 13, 1989.*

### **21 NCAC 60 .0304 RENEWALS AND REINSTATEMENTS**

Refrigeration license/reinstatement notices are sent out to all licensees on or about October 31 of each year. On or about January 15, each person who has not applied for the renewal of his license is notified that his license has lapsed and is sent a letter instructing him to apply for the reinstatement of his license. On or about February 1, those lapsed licensees who have not replied to the above letter are sent another letter by certified mail notifying them that their license has lapsed and that it is unlawful to engage further in the business of refrigeration contracting.

*History Note: Authority G.S. 87-54; 87-64;  
Eff. February 1, 1976;  
Readopted Eff. April 17, 1978;  
Amended Eff. April 1, 1989;  
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff.  
September 19, 2015.*

### **21 NCAC 60 .0305 FORM: RENEWAL APPLICATION**

*History Note: Authority G.S. 87-54; 150B-11;  
Eff. February 1, 1976;  
Readopted Eff. April 17, 1978;  
Repealed Eff. May 1, 1988.*



**21 NCAC 60 .0306 FORM: REINSTATEMENT APPLICATION**  
**21 NCAC 60 .0307 PROBLEMS AND COMPLIANCE**  
**21 NCAC 60 .0308 REINSTATEMENT AFTER SUSPENSION**

*History Note: Authority G.S. 87-54; 87-59; 87-64;*  
*Eff. February 1, 1976;*  
*Readopted Eff. April 17, 1978;*  
*Repealed Eff. February 1, 1981.*

**21 NCAC 60 .0309 FORM: REINSTATEMENT APPLICATION**

*History Note: Authority G.S. 87-54; 87-64; 150B-11(1);*  
*Eff. February 1, 1976;*  
*Readopted Eff. April 17, 1978;*  
*Amended Eff. February 1, 1981;*  
*Repealed Eff. May 1, 1988.*

**21 NCAC 60 .0310 LOST OR DESTROYED CERTIFICATES**

A lost or destroyed refrigeration license certificate may be reissued at no cost for a current year, upon receipt of a written request from the licensee stating the reason for his requesting a new certificate.

*History Note: Authority G.S. 87-54; 87-60;*  
*Eff. February 1, 1976;*  
*Readopted Eff. April 17, 1978;*  
*Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff.*  
*September 19, 2015.*

**21 NCAC 60 .0311 PERMITS**

- (a) The refrigeration license number of the licensee shall appear on all applications for permits.
- (b) A licensee shall assure that a permit is obtained from the local Building Code enforcement official before commencing any installation work for which a license is required by the Board. The licensee shall also assure that a request for final inspection is made within 10 days of subsequent completion of the work for which a license is required, absent agreement with the owner and the local Building Code enforcement official.
- (c) A licensee shall obtain permits and allow his number to appear on permits only for work over which he will provide general supervision until the completion of the work, for which he holds the contract and for which he receives all contractual payments.
- (1) General supervision is that degree of supervision which is necessary and sufficient to ensure that the work is performed in a competent manner and with the requisite skill and that the work is done timely, safely and in accordance with applicable codes and rules. General supervision requires that the review of the work be performed in person by the licensee while the work is in progress.
  - (2) Each business office for which a licensee is responsible shall be actively and locally supervised by that licensee who shall have primary responsibility and a corresponding amount of time personally involved in the work contracted for or performed by that office.

*History Note: Authority G.S. 87-54; 87-58(g);  
Eff. May 1, 1988;  
Amended Eff. August 1, 2004; July 1, 2000; April 1, 1989;  
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff.  
September 19, 2015.*

**21 NCAC 60 .0312 CHANGE OF TRADE NAME**

The trade name under which a license is issued may be changed upon request to and approval by the Board. The last license issued to the licensee must be returned to the Executive Director along with the form provided by the Board.

*History Note: Authority G.S. 87-54; 87-60;  
Eff. December 1, 1993;  
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff.  
September 19, 2015.*

**21 NCAC 60 .0313 PROCESSING FEE FOR SUBMITTAL OF BAD CHECK**

Any person or firm submitting to the Board a check which is subsequently returned to the Board because of insufficient funds in or no account at a bank will be charged the maximum processing fee allowed by G.S. 25-3-512. Until such time as the payer of such a bad check has made the check good and paid the prescribed processing fee, the payer will not be eligible to take an examination, obtain a license or have a license renewed.

*History Note: Authority G.S. 87-54; 87-63;  
Eff. December 1, 1993;  
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff.  
September 19, 2015.*

**21 NCAC 60 .0314 USE OF LICENSE**

- (a) The licensed contractor shall not permit the use of his license by any other person.
- (b) All refrigeration contracting business, including all business advertising and the submission of all documents and papers by a licensee of the Board shall be conducted in the exact name in which the refrigeration contracting license is issued.
- (c) Should a licensee terminate his relationship from a company in which his license is issued, work begun prior to such termination may be completed under such conditions as the Board shall direct subject to the following conditions deemed applicable by the Board under the unique facts and circumstances of each instance:
  - (1) the percentage of the project completed;
  - (2) the time that may elapse before another licensee can be employed for the project;
  - (3) the size and complexity of the project;
  - (4) the experience and qualifications of remaining personnel;
  - (5) any prior disciplinary record the company involved licensees has with the Board;
  - (6) the financial accountability of the firm;
  - (7) whether or not the remaining firm has any other occupational licenses.

However, no work for which a license is required under G.S. 87-58 may be bid for, contracted for or initiated prior to said company obtaining a license.

*History Note: Authority G.S. 87-54; 87-57;  
Eff. December 1, 1993;  
Amended Eff. April 1, 1997; August 1, 1995;  
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff.  
September 19, 2015.*

**21 NCAC 60 .0316 CHANGE OF ADDRESS**

All licensees shall notify the Board in writing within 30 days of any change of address or business location.

*History Note: Authority G.S. 87-58;  
Eff. July 1, 2000;  
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff.  
September 19, 2015.*

**SECTION .0400 - BOARD PERSONNEL**

**21 NCAC 60 .0401 SUPERVISION OF STAFF**

**21 NCAC 60 .0402 QUALIFICATIONS FOR EMPLOYMENT**

*History Note: Authority G.S. 87-54; 150B-11(1);  
Eff. February 1, 1976;  
Readopted April 17, 1978;  
Amended Eff. February 1, 1981;  
Repealed Eff. May 1, 1988.*

**21 NCAC 60 .0403 SALARY REVIEW COMMITTEE**

**21 NCAC 60 .0404 SALARIES AND FRINGE BENEFITS**

*History Note: Authority G.S. 87-54; 150B-11(1);  
Eff. February 1, 1981;  
Amended Eff. October 1, 1984;  
Repealed Eff. May 1, 1988.*

**SECTION .0500 - PETITIONS FOR RULES**

**21 NCAC 60 .0501 PETITION FOR RULEMAKING HEARINGS**

**21 NCAC 60 .0502 CONTENTS OF PETITION**

**21 NCAC 60 .0503 DISPOSITION OF PETITIONS**

*History Note: Authority G.S. 87-54; 150A-16;*

*Eff. February 1, 1976;*  
*Readopted Eff. April 17, 1978;*  
*Repealed Eff. February 1, 1981.*

## **SECTION .0600 - NOTICE OF RULEMAKING HEARINGS**

- 21 NCAC 60 .0601 TIMING OF NOTICE**
- 21 NCAC 60 .0602 NOTICE MAILING LIST**
- 21 NCAC 60 .0603 ADDITIONAL INFORMATION**

*History Note: Authority G.S. 87-54; 150A-12(a)(2); 150A-12(b); 150A-12;*  
*Eff. February 1, 1976;*  
*Readopted Eff. April 17, 1978;*  
*Repealed Eff. February 1, 1981.*

## **SECTION .0700 - RULEMAKING HEARINGS**

- 21 NCAC 60 .0701 REQUEST TO PARTICIPATE**
- 21 NCAC 60 .0702 CONTENTS OF REQUEST: GENERAL TIME LIMITATIONS**
- 21 NCAC 60 .0703 RECEIPT OF REQUEST: SPECIFICATION LIMITS**
- 21 NCAC 60 .0704 WRITTEN SUBMISSIONS**
- 21 NCAC 60 .0705 PRESIDING OFFICER: POWERS AND DUTIES**
- 21 NCAC 60 .0706 STATEMENT OF REASONS FOR DECISION**
- 21 NCAC 60 .0707 RECORD OF PROCEEDINGS**
- 21 NCAC 60 .0708 EMERGENCY RULES**

*History Note: Authority G.S. 87-54; 150A-11; 150A-12(a),(e); 150A-13;*  
*Eff. February 1, 1976;*  
*Readopted Eff. April 17, 1978;*  
*Repealed Eff. February 1, 1981.*

## **SECTION .0800 - DECLARATORY RULINGS**

- 21 NCAC 60 .0801 SUBJECTS OF DECLARATORY RULINGS**
- 21 NCAC 60 .0802 SUBMISSION OF REQUEST FOR RULING**
- 21 NCAC 60 .0803 DISPOSITION OF REQUESTS**
- 21 NCAC 60 .0804 RECORD OF DECISION**
- 21 NCAC 60 .0805 DEFINITION**

*History Note: Authority G.S. 87-54; 150A-11; 150A-17;*  
*Eff. February 1, 1976;*  
*Readopted Eff. April 17, 1978;*  
*Repealed Eff. February 1, 1981.*

## SECTION .0900 - ADMINISTRATIVE HEARING PROCEDURES

- 21 NCAC 60 .0901 RIGHT TO HEARING
- 21 NCAC 60 .0902 REQUEST FOR HEARING
- 21 NCAC 60 .0903 GRANTING OR DELAYING HEARING REQUESTS
- 21 NCAC 60 .0904 NOTICE OF HEARING
- 21 NCAC 60 .0905 WHO SHALL HEAR CONSENT CASES
- 21 NCAC 60 .0906 PETITION FOR INTERVENTION
- 21 NCAC 60 .0907 TYPES OF INTERVENTION
- 21 NCAC 60 .0908 DISQUALIFICATION OF HEARING OFFICERS

*History Note: Authority G.S. 87-54; 150A-2(2); 150A-23(a) through 150A-23(d); 150A-32; 1A-1, Rule 24; Eff. February 1, 1976; Readopted Eff. April 17, 1978; Repealed Eff. February 1, 1981.*

## SECTION .1000 - ADMINISTRATIVE HEARINGS: DECISIONS: RELATED RIGHTS AND PROCEDURES

- 21 NCAC 60 .1001 FAILURE TO APPEAR
- 21 NCAC 60 .1002 SIMPLIFICATION OF ISSUES
- 21 NCAC 60 .1003 SUBPOENAS
- 21 NCAC 60 .1004 FINAL DECISION OF ADMINISTRATIVE HEARINGS
- 21 NCAC 60 .1005 PROPOSALS FOR DECISIONS

*History Note: Authority G.S. 87-54; 150A-25(a); 150A-27; 150A-31; 150A-33; 150A-34(a); 150A-43; Eff. February 1, 1976; Readopted Eff. April 17, 1978; Repealed Eff. February 1, 1981.*

## SECTION .1100 - DISCIPLINARY ACTION

- 21 NCAC 60 .1101 GENERAL

*History Note: Authority G.S. 87-59; 87-63; 150B-11(1); Eff. February 1, 1981; Repealed Eff. April 1, 1989.*

- 21 NCAC 60 .1102 PREFERRING CHARGES

(a) Any person who believes that any refrigeration contractor is in violation of the provisions of G.S. 87-59 may prefer charges against such contractor by setting forth the charges in writing with particularity including, but not limited to, the date and place of the alleged violation. Such charges shall be signed and sworn to by the party preferring such charges and filed with the Executive Director

of the State Board of Refrigeration Examiners at the office of the Board, Suite 208, 893 Highway 70 West, Garner, North Carolina 27529.

(b) A licensee who prefers charges against a refrigeration contractor shall cooperate with the Board in its investigation of the complaint including the execution of an affidavit covering their knowledge of the facts and circumstances concerning the complaint, if required, and participate in any legal action authorized by the Board if requested by the Board or its representative.

(c) A licensee shall fully cooperate with the Board in connection with any inquiry it shall make. Full cooperation includes responding in a timely manner to all inquiries of the Board or representative of the Board and claiming Board correspondence from the U.S. Postal Service.

*History Note: Authority G.S. 87-59;*

*Eff. February 1, 1981;*

*Amended Eff. August 1, 2004; July 1, 2000; August 1, 1995; December 1, 1993; April 1, 1989; December 1, 1987;*

*Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. September 19, 2015.*

### **21 NCAC 60 .1103 PRELIMINARY DETERMINATION**

(a) A charge, filed under Rule .1102 of this Section, shall be referred initially to a review committee.

(b) The review committee shall be made up of the following individuals:

- (1) one officer, other than the Chairman, of the State Board of Refrigeration Examiners,
- (2) the legal counsel of the Board,
- (3) the Executive Director of the State Board of Refrigeration Examiners.

(c) The review committee shall have the authority to determine prior to a full Board hearing whether or not charges filed against a refrigeration contractor are unfounded, frivolous or trivial. The determination of the review committee shall be final in this respect.

(d) Once a charge is referred to the review committee a written notice of said charge shall be forwarded to the licensee against whom the charge is made. Notice of the charge and of the alleged facts and circumstances surrounding the charge shall be given personally or by registered or certified mail, return receipt requested. A response to said charges shall be requested of the licensee so charged and shall be made within twenty days from the date shown on the return mail certificate or date of personal notice.

(e) If the licensee denies the charges brought against him, then in the sole discretion of the review committee, additional investigative personnel may be retained by the Board for the purpose of obtaining evidence relating to such charges. The reasonable expenses of any such additional personnel shall be borne by the Board.

(f) After all preliminary evidence has been received by the review committee it shall make a preliminary determination of the charges filed against the refrigeration contractor. From the evidence it may recommend to the Board that:

- (1) the charges be dismissed as unfounded, frivolous, trivial; or
- (2) when the charge is admitted by the licensee or the evidence warrants, the Board be presented with the charge for its decision. If the charge is of such gravity as to make the imposition of punitive sanctions likely, the Board may administer one or more of the following penalties if the licensee is found to have violated the provisions of Article 5 of Chapter 87 of the General Statutes:
  - (A) Reprimand;

- (B) Suspension from practice for a period not to exceed 12 months;
  - (C) Probationary revocation of license upon conditions set by the Board as the case shall warrant with revocation upon failure to comply with the conditions; or
  - (D) Revocation of license; or
  - (E) An acceptance of an offer in compromise of the charge, as provided by G.S. 87-59(d).
- (3) if the charge is denied and evidence warrants, or if the charge, while admitted, is of such gravity as to make the imposition of punitive sanctions likely, the charge be presented to the Board for its decision on the merits of the charge in accordance with G.S. 150B. In connection with any such reprimand and subsequent order the Board may also provide that in the event the licensee is determined to have violated in the future any of the provisions of G.S. 87, Article 5, the Board may suspend or revoke his license as prescribed by law.

*History Note: Authority G.S. 87-57; 87-59; 150B-38;  
Eff. February 1, 1981;  
Amended Eff. November 1, 1995; December 1, 1993; April 1, 1989; May 1, 1988;  
Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff.  
September 19, 2015.*

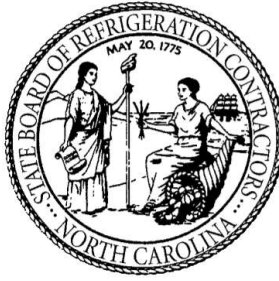
#### **21 NCAC 60 .1104 JUDICIAL REVIEW**

*History Note: Authority G.S. 87-59; 87-63; 150B-11(1);150B-43;  
Eff. February 1, 1981;  
Amended Eff. May 1, 1988;  
Repealed Eff. April 1, 1989.*





# STATE BOARD OF REFRIGERATION CONTRACTORS



## APPLICATION FOR REFRIGERATION EXAMINATION

(Please print legibly or type all information)

I hereby apply for examination to qualify for license to engage in the business of refrigeration contracting in the State of North Carolina. I have read and understand the refrigeration experience requirement. (21 NCAC 60..0207).

1. Personal (Applicants must include full name and not an initial)

Name: First \_\_\_\_\_ Middle Initial \_\_\_\_\_ Last \_\_\_\_\_

Date of Birth \_\_\_\_\_ Social Security Number \_\_\_\_\_ County \_\_\_\_\_

Work Phone \_\_\_\_\_ Home Phone \_\_\_\_\_ Cell Phone \_\_\_\_\_

E-mail address \_\_\_\_\_ Work Fax \_\_\_\_\_

2. Current Employer \_\_\_\_\_

Mailing Address \_\_\_\_\_  
(Board mail will be sent here) Street City State Zip

Physical Address \_\_\_\_\_  
(If different from mailing address) Street City State Zip

3. Please indicate examination: \_\_\_ Commercial \_\_\_ Service \_\_\_ Industrial \_\_\_ Transport  
Check only one. A separate Application and Supervisor's Statement or Affidavit is required for each type of license.

4. Do you hold a current refrigeration license? Yes \_\_\_ No \_\_\_ If yes, what is your license number? \_\_\_\_\_

5. Commercial, Service, and Transport applicants must have a valid Section 608 EPA Certificate (Type II or Universal) to handle refrigerants. Please attach a copy of your CFC Certificate.

6. Have you ever been licensed by any other licensing board in North Carolina, or in any other state or municipality? Yes \_\_\_ No \_\_\_

If yes, what licenses do you hold? \_\_\_\_\_

7. Have you ever had an occupational license revoked or suspended? Yes \_\_\_ No \_\_\_ if yes, attach a statement giving complete details

8. Have you ever taken the examination for a NC Refrigeration Contractor's License? Yes \_\_\_ No \_\_\_

If so, when \_\_\_\_\_ where \_\_\_\_\_ did you pass \_\_\_\_\_

9. Each license is issued to the individual who qualifies. If a license is granted, state the exact name in which it should be registered at the present time. Individual's name or individual's name followed by firm name. Also include address where all correspondence should be sent.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



10. Record of refrigeration experience/education needed to qualify for a refrigeration contractor examination. The experience must be relevant to the type of license you are applying for. Up to one-half the experience may be in academic or technical training directly related to the field of endeavor for which the examination is being requested.

(a) Education:

Name of school/location where refrigeration training obtained \_\_\_\_\_

Course name or description \_\_\_\_\_

Actual number of contact hours \_\_\_\_\_ Type Degree: Diploma (1 year) \_\_\_\_ Associate (2 years) \_\_\_\_

(b) Experience Record: Please list where you obtained your experience, providing description of the work performed, as well as employment dates, firm name, address and phone number, name of supervisor and number of hours obtained. (attach additional pages, if needed)

DATE		FIRM NAME; NAME, ADDRESS, AND PHONE NUMBER OF SUPERVISOR	NUMBER OF HOURS
FROM	TO		

11. The \$100.00 payable to the State Board of Refrigeration Examiners is a nonrefundable fee deposit for the your exam. (Re: G.S. 87-64)

Method of Payment: \_\_\_ Check \_\_\_ Money Order \_\_\_ VISA \_\_\_ MasterCard

Total Amount \$ \_\_\_\_\_

Card # \_\_\_\_\_ Exp. Date \_\_\_\_\_ Verification Code \_\_\_\_\_

Name on Card \_\_\_\_\_ Signature \_\_\_\_\_

My signature and license number will appear on all refrigeration contracts and I will exercise general supervision of all work done thereunder.

I do hereby certify that the statements made above are true and correct to the best of my knowledge and belief. I understand that any false information given is grounds for revocation of license.

\_\_\_\_\_  
(Signature of Applicant)

\_\_\_\_\_  
(Date)

Mail Application To: State Board of Refrigeration Examiners  
1027 US Highway 70 West, Suite 221  
Garner, North Carolina 27529



## SUPERVISOR'S STATEMENT

(This page to be completed by persons who supervised applicant)

Notice to Licensee/Employer regarding experience: In order for the Board to maintain appropriate standards of competence for new licensees, it is important that extreme care be exercised in verifying an applicant's experience. The Board reserves the right to review, if necessary, all employment records prior to making a final determination of the applicant's experience. If any former employee asks that you sign a form verifying his/her work experience so as to qualify for an examination, you must complete these forms to the extent of your knowledge. An unjustified refusal to sign appropriately documented forms provided by the applicant will lead to an appearance before a Board review official.

The Board understands that on occasion employees are dismissed due to lack of skill, tardiness, substance abuse, theft or other reasons. In such circumstances, you may wish to provide additional information to the Board by separate letter. The Board will consider all such information within the limits of its duty and authority.

The person listed below is applying for a North Carolina refrigeration contractor examination. A minimum of 4000 hours of refrigeration experience is required before an application may be accepted by the NC State Board of Refrigeration Examiners. This experience must have been acquired while engaged actively and directly in the installation, maintenance, servicing and repairing of commercial, transport, or industrial refrigeration equipment. Qualifying experience must have been acquired while working under the supervision of person(s) holding a valid refrigeration contractor's license, registered professional engineer or equivalent\*.

If applying for multiple types of refrigeration licenses, such as Commercial and Industrial, this page must be filled out for each type of license.

1. I certify that \_\_\_\_\_ has acquired a total of \_\_\_\_\_ hours of refrigeration experience while working under my supervision. He has engaged in the installation \_\_\_\_, maintenance \_\_\_\_, service \_\_\_\_, or repair \_\_\_\_ of commercial \_\_\_\_, transport \_\_\_\_, or industrial \_\_\_\_ refrigeration equipment while working under my supervision. The experience was acquired between the following dates: \_\_\_\_\_ to \_\_\_\_\_ **(Do not list any comfort cooling experience.)**

Briefly list job description

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Name, address and telephone number where applicant's refrigeration experience was acquired:

Firm \_\_\_\_\_

Mailing Address \_\_\_\_\_

Telephone Number \_\_\_\_\_

Supervisor's Qualifications: Licensed Refrigeration Contractor \_\_\_\_; Registered Professional Engineer \_\_\_\_; equivalent\* \_\_\_\_

\_\_\_\_\_  
(Print Supervisor's Name) (License No.) (State)

\_\_\_\_\_  
Address of Supervisor City State Zip Telephone No.

If you checked equivalent\*, please list your technical School or College training in refrigeration \_\_\_\_\_ years

Name and Address of School Attended:

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I have had \_\_\_\_\_ years of full time field experience in commercial refrigeration.

Comments:

\_\_\_\_\_  
Signature of Supervisor

\_\_\_\_\_  
Date

\*Equivalent means that in the judgment of the Board, a person has sufficient refrigeration training and experience to be proficient in the installation, maintenance, service and repairing of commercial refrigeration equipment.

PLEASE MAKE COPIES OF THIS PAGE IF ADDITIONAL STATEMENTS ARE NEEDED



Complete this affidavit only if the supervisor's statement is not completed.

# AFFIDAVIT

State of \_\_\_\_\_

County of \_\_\_\_\_

\_\_\_\_\_, being first duly sworn, deposes and says:  
(Print name of applicant)

- I have read and understand Rules .0207 of Title 21, Chapter 60 of the North Carolina Administrative Code.
- If you are not able to furnish a supervisor's statement, please explain to the Board why you cannot furnish such a statement

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. I have acquired at least 4000 hours of refrigeration experience\* in commercial, industrial, or transport refrigeration. My refrigeration experience was acquired while employed with the following person(s) or firm(s). (Up to one-half the experience may be in academic or technical training directly related to the field of endeavor for which the exam is requested.)

(a) \_\_\_\_\_  
 (Name of person or firm) (Address)

\_\_\_\_\_  
 (City) (State) (Zip) (Telephone Number)

From \_\_\_\_\_ to \_\_\_\_\_  
 (Dates of Employment) (My duties with the firm)

(b) \_\_\_\_\_  
 (Name of person or firm) (Address)

\_\_\_\_\_  
 (City) (State) (Zip) (Telephone Number)

From \_\_\_\_\_ to \_\_\_\_\_  
 (Dates of Employment) (My duties with the firm)

(c) Comments:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

This \_\_\_\_\_ day of \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

Sworn and subscribed before me,

this \_\_\_\_\_ day of \_\_\_\_\_

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

\*Do not list any comfort cooling or air conditioning experience.

\*\*Equivalent means that, in the judgment of the Board, a person has had sufficient refrigeration training and experience to be proficient in the installation, maintenance and repairing of commercial refrigeration equipment.