

# Quality Assured Elements



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QUALITY ASSURED CONTRACTOR ELEMENTS  
CONTRACTOR SELF-CERTIFICATION PROGRAM

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ACCA expressly disclaims all liabilities for damages of any sort, whether direct, indirect or consequential, arising out of the use, reference to, or reliance on these QA Elements.



## Introduction

The QA Elements are intended to provide guidance to QA Program Participants on the conduct of quality business services and to outline several of the core areas that quality-conscious contractors follow in their management activities. QA Program Participants are encouraged to develop and comply with policies and procedures that provide the highest standards of quality and consumer protections. If there is a conflict between any element of the QA Elements and any federal, state and/or local rule or regulation, the controlling rule or regulation supersedes these QA Elements.

QA Program Participants are required to self-certify compliance with the QA Elements. Reported violations with the QA Elements or any requirements of the QA Program may result in an investigation and potential disciplinary action, including dismissal from participation in the QA Program.

QA Program Participants are required to respond truthfully and accurately to all inquiries made by ACCA, the QA Program Administrator, during any investigation into potential non-compliance with QA Program requirements.

Additional information can be found at [www.acca.org/qa](http://www.acca.org/qa).



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## **QA-1 BUSINESS PREREQUISITES**

*QA-1 focuses on the fundamental requirements for operating a legal contracting business.*

### **QA-1.1 LICENSING OR REGISTRATION**

The contractor shall possess all required statutory/regulatory licenses and other state or local registrations for the business as dictated by the requirements in each jurisdiction where the contractor does business. All such items are to be current.

### **QA-1.2 INSURANCE**

The contractor shall carry at least the statutory levels of insurance and applicable bonds required by the appropriate jurisdictions where the company offers its services, as well as all applicable contractually required insurance. Such insurance coverage shall include, but is not limited to:

- a) Liability,
- b) Worker's compensation,
- c) Company vehicles, and
- d) Bonds.

### **QA-1.3 CODE REQUIREMENTS**

All work performed by the contractor shall comply with all required state and local building codes, energy codes, and related regulations in each jurisdiction where the contractor does business, including, but not limited to:

- a) HVAC equipment sizing,
- b) HVAC selection,
- c) HVAC installation,
- d) HVAC servicing, and
- e) HVAC maintenance.

### **QA-1.4 REFRIGERANT CERTIFICATIONS, TRAINING, AND EQUIPMENT**

All technicians, or third-party subcontractors, who handle refrigerants are to recover/recycle refrigerants in compliance with EPA regulations (i.e., Section 608). The contractor is responsible for:

- a) Use of operational Recover/Recycle equipment,
- b) Use of operational evacuation equipment capable of maintaining a vacuum of at least 500 microns,
- c) Ensuring company technicians who recover refrigerants, recycle refrigerants, or charge refrigerants to HVAC systems possess all required EPA refrigerant certifications (i.e., I, II, III or Universal),
- d) Providing required recover/recycle equipment to company technicians who handle refrigerants,
- e) Ensuring that pertinent technicians are trained in the correct use of recover/recycle equipment,
- f) Ensuring that pertinent technicians are trained in the correct use of evacuation equipment,
- g) Ensuring that company refrigerant records are kept in compliance with Section 608 EPA regulations.



### **QA-1.5 HAZARDOUS MATERIALS REGULATIONS**

The contractor shall adhere to all applicable federal, state and local pollution codes and regulations related to handling hazardous materials, and will develop and comply with guidelines and policies for the safe and proper handling of hazardous materials and substances at the company workplace(s) and work sites, including:

- a) Proper storage of hazardous materials and substances at the workplace,
- b) Proper transportation of hazardous materials and substances to and from different sites,
- c) Proper use of hazardous materials and substances by the company,
- d) Proper disposal of hazardous materials and substances by the company,
- e) Following proper procedures for treating and cleaning up discharges and accidental spills,
- f) Ensuring material safety data sheets (MSDS) are used, and
- g) Ensuring personnel use appropriate safety equipment.

### **QA-2 BUSINESS OPERATIONS**

*QA-2 focuses on business practices and procedures.*

#### **QA-2.1 EMPLOYMENT**

The contractor shall perform reference and criminal background checks and ensure that all employees meet appropriate employment eligibility requirements.

#### **QA-2.2 SAFETY PROGRAMS**

The contractor shall ensure employees receive the appropriate type and level of safety training, including, but not limited to:

- a) Fleet safety, and
- b) Injury prevention.

#### **QA-2.3 FLEET MANAGEMENT**

The contractor shall ensure dedicated company vehicles meet federal, state and local laws and regulations and are properly maintained. Such compliance shall include, but not be limited to:

- a) Ensuring that company vehicles are marked in accordance with legal requirements, and
- b) Ensuring company vehicles are properly maintained in accordance with legal requirements.

#### **QA-2.4 QUALITY INSTALLATION**

The contractor shall ensure that HVAC equipment replacements and new equipment installations comply with ANSI/ACCA Standard 5 (*HVAC Quality Installation Specification*), and shall specifically develop



and comply with policies which ensure that the contractor is following all Quality Installation (“QI”) Specification requirements:

- a) Ventilation requirements (per QI §3.1),
- b) Heat-gain and heat-loss load calculations (per QI §3.2),
- c) Properly-sized HVAC equipment (per QI §3.3),
- d) Ground heat exchangers (per QI §3.4),
- e) Properly matched systems (per QI §3.5),
- f) Airflow through the indoor heat exchanger (per QI §4.1),
- g) Waterflow through the indoor heat exchanger (per QI §4.2),
- h) Refrigerant charge (per QI §4.3),
- i) Electrical requirements (per QI §4.4),
- j) Combustion equipment is “on-rate” (per QI §4.5),
- k) Venting of combustion gases (per QI §4.6),
- l) System operational and safety controls (per QI §4.7),
- m) Air ducts are sealed (CFM) (per QI §5.1),
- n) Room airflow (per QI §5.2),
- o) Water flow (per QI §5.3),
- p) Customer documentation (per QI §6.1), and
- q) Owner and/or operator education (per QI §6.2).

#### **QA-2.5 QUALITY MAINTENANCE**

The contractor shall develop and comply with policies and procedures ensuring that maintenance work performed is in accordance with ANSI/ACCA Standard 4 (*Maintenance of Residential HVAC Systems*) or ANSI/ASHRAE/ACCA/Standard 180 (*Standard Practices for Inspection and Maintenance of Commercial Building Systems*), and with OEM recommendations:

- a) Inspections of the HVAC system,
- b) Repairs and corrective actions, and
- c) Inspection, repairs, cleanings, and other maintenance tasks.

#### **QA-2.6 QUALITY RESTORATION**

The contractor shall develop and comply with written policies for the relevant work undertaken regarding duct cleaning and other extraordinary system restoration work in accordance with ANSI/ACCA Standard 6 (*Restoring the Cleanliness of HVAC Systems*).

#### **QA-2.7 INSTRUMENTATION/MEASUREMENT TOOLS**

The contractor shall develop and comply with policies requiring that appropriate instrumentation/measurement tools are available for each service offered by the contractor. Further, the





contractor shall maintain calibration and service records for instruments and test equipment that require calibration and maintenance.

### **QA-3 TRAINING & CERTIFICATION**

*QA-3 focuses on fundamental training and certification for HVAC contractors.*

#### **QA-3.1 CONTINUING EDUCATION**

The contractor shall ensure that company personnel receives:

- a) A minimum of 6 equivalent hours of application and technical training per year for each company salesperson/designer, and
- b) A minimum of 12 equivalent hours of technical training per year; or technician maintains certification by an HVAC industry-recognized and accepted certification program (e.g., NATE).

#### **QA-3.2 CERTIFICATION**

The contractor shall ensure employees maintain proper certification for relevant HVAC work undertaken, including, but not necessarily limited to:

- a) All required federal, state and local certifications, and
- b) Certification by NATE (or an accepted industry equivalent):
  - 1) For New construction: at least 25% of the company's start-up technicians
  - 2) For Existing buildings: at least 25% of the company's technicians.

### **QA-4 CUSTOMER RELATIONS**

*QA-4 focuses on the manner in which a contractor addresses customer issues and concerns.*

#### **QA-4.1 INTERACTIONS WITH BUILDING OWNERS AND HOMEOWNERS**

The contractor shall:

- a) Identify potential defects or deficiencies in the HVAC system or the building,
- b) Establish options to resolve any defects or deficiencies,
- c) Confer with the building owner or builder over work to be performed, including equipment/material to be installed by the contractor,
- d) Ensure that work performed materially meets the written contractual agreement between the customer and the company, and
- e) Address customer complaints.



#### **QA-4.2 WARRANTIES**

Contractors offering warranties shall provide written documentation to the customer which includes at a minimum provisions addressing:

- a) Scope of the warranty, including coverages and exclusions,
- b) Whether the warranty is transferable,
- c) The effective date of the warranty and any expiration dates, and
- d) Contact information for resolution of warranty claims.

#### **QA-4.3 SERVICE AGREEMENTS**

Contractors offering service agreements shall provide customers written documentation which includes at a minimum provisions addressing:

- a) Scope of the service agreement, including coverages and exclusions,
- b) Whether the service agreement is transferable by either party,
- c) The effective date and expiration date of the service agreement, and
- d) Contractor contact information.