

**THE SHEET METAL INDUSTRY  
INTERNATIONAL CERTIFICATION BOARD**

**Testing, Adjusting and Balancing Bureau (TABB)  
CERTIFICATION MANUAL  
Master Revision #4 – May 2008**

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## **Foreword on ICB and TABB**

The Sheet Metal Industry International Certification Board (the "ICB") is a committee of the National Energy Management Institute Committee ("NEMIC"). NEMIC is itself a labor management committee trust fund established by the Sheet Metal Workers' International Association (SMWIA) and the Sheet Metal and Air Conditioning Contractors National Association (SMACNA).

The ICB establishes standards for international certification programs in the sheet metal industry. It also implements certification programs for technicians, supervisors, and contractors. The ICB does so via particular bureaus. One of those bureaus is the Testing, Adjusting and Balancing Bureau of the ICB. This Bureau is known as "TABB." TABB establishes and directs an international certification program for technicians, supervisors and contractors engaged in testing, adjusting and balancing of all building environmental systems.

The International Training Institute for the Sheet Metal and Air Conditioning Industry (the "ITI") also is a trust fund established by the SMWIA and SMACNA. The ITI trains and certifies technicians in testing, adjusting and balancing.

TABB recognizes ITI certification of technicians, to TABB standards, for the TABB Certification Program.

A TABB Qualified Technician is a technician whose certification is recognized by the TABB, and who accepts TABB rules and standards. A TABB technician must sign and follow TABB's Technician Integrity Agreement Appendix 1B.

A TABB Certified Supervisor is one who meets applicable qualifications and experience requirements and who passes the Supervisor examination administered by TABB.

Contractors who meet qualifications outlined in this Manual can become TABB Certified Contractors.

TABB may change any and all certification requirements and procedures. TABB alone may interpret and apply requirements and procedures set forth in this Manual. Any questions concerning TABB certification may be addressed to TABB. Contact information is included in this Manual.

# Section 1 Introduction

## 1.1 PURPOSE AND OVERVIEW

This Manual states how one can become a TABB Certified Technician, a TABB Certified Supervisor or TABB Certified Contractor. TABB Certified Technician status is available to testing, adjusting and balancing technicians who qualify per Section 1.5 of this Manual.

Section 2 of this Manual focuses on TABB Certified Supervisor standards and requirements.

Section 3 of the Manual focuses on TABB Certified Contractor standards and requirements.

**To become a TABB Certified Supervisor or Contractor, read this Manual carefully.** Questions should be directed to TABB. Contact information is in this Manual.

## 1.2 AMENDMENT AND INTERPRETATION

TABB may at any time amend any part of this Manual and standards, procedures, proficiency requirements, application forms, lists, and other items to which this Manual refers. An amendment may change certification requirements, and may affect current certifications, renewals and/or new applications for certification.

TABB alone will interpret and administer its standards and procedures, including those set forth in this Manual. TABB may waive or modify any requirement. TABB's decision is not subject to review by anyone else.

TABB may at any time adopt, change or discard rules and guidelines for the TABB's internal processes with respect to various certification-related activities, and/or set standards for the certification process.

## 1.3 THE MEANING OF CERTIFICATION/QUALIFICATION

Certification is a statement that the TABB Certified Supervisor or TABB Certified Contractor has met TABB's standards for certification. The aim of TABB's certification standards is to ensure that TABB Certified Supervisors and TABB Certified Contractors are competent, reliable and qualified professionals.

TABB qualification of a Technician is TABB's recognition that the Technician is able to test, adjust or balance building environmental systems to produce the design objectives or optimum system performance, in accordance with TABB standards. (TABB standards include the ICB Code of Conduct, the TABB General Rules, and the sample specifications included in this Manual, and other standards from time to time adopted by TABB.)

One requirement of maintaining TABB Certification is continuing compliance with the ICB Code of Conduct. That Code of Conduct includes the following standard:

Each person certified by ICB or an ICB bureau . . . is expected to practice his or her profession consistent with the standards and procedures applicable to the certification, and the highest quality workmanship.

What TABB qualification or certification **should mean** to the customer is that this standard has been met.

## 1.4 CERTIFICATION DOCUMENTS

On certification of a Technician, Supervisor or Contractor, TABB will issue the following:

- A. A certificate including:
  - 1. Date of certification,
  - 2. The name of the Technician, Supervisor, or Contractor, and
  - 3. Other pertinent information.
  
- B. For Technicians, an identification card with the following:
  - 1. Name of the Technician
  - 2. Optional - photograph of the Technician
  - 3. Issue date
  - 4. Expiration date
  - 5. Individualized certification number
  - 6. Signature block
  
- C. For Supervisors only, a certification card including:
  - 1. Name of the Supervisor,
  - 2. Optional - Photograph of the Supervisor,
  - 3. Expiration date, and
  - 4. Other pertinent information.
  
- D. For Contractors, certificate and an identification stamp (**Appendix 1A**) which includes:
  - 1. Name of the Contractor,
  - 2. Individualized certification number,
  - 3. Expiration Date, and
  - 4. Signature block.

Certification is for two years. See the *General Rules* in this Manual.  
Documentation for a TABB Certified Technician is addressed below.

A Technician will be issued an identification stamp. The Technician must hold and use the stamp only in accordance with the Integrity and Stamp Agreement (**Appendix 1B**). Each certificate, card and stamp is paid for by and remains the property of TABB. A charge will be assessed to replace lost or damaged certification documents or stamp. Certification documents must be surrendered to TABB whenever TABB demands. Misuse of, or misrepresentation concerning, any stamp or certificate may lead to withdrawal of certification, and rescission of the certificate, card and stamp.

Multiple certifications may be reflected on a single card or certificate.

## 1.5 TECHNICIAN QUALIFICATIONS

ICB does not at this time separately train, test, or directly certify testing, adjusting and balancing technicians. ICB has determined to recognize and accept certification, for the TABB certification program, by The International Training Institute for the Sheet Metal and Air Conditioning Industry (ITI), which ICB is satisfied trains and/or tests technicians to acceptable TABB standards. TABB recognition and acceptance of technician certification extends only to a technician who meets all ITI requirements for certification and only for so long as:

- (a) the technician meets all of those requirements,
- (b) the technician continues to be certified by ITI,
- (c) the technician certification is in good standing, and
- (d) the technician signs the TABB Technician Integrity and Stamp Agreement.

To be a TABB Certified Technician, a qualifying technician must accept and agree to be bound to the

ICB Code of Conduct, this TABB Certification Manual, TABB standards, and must sign documents to that effect as TABB may require. The TABB applicant must sign an Integrity and Stamp Agreement (Appendix 1B). If the technician does so, qualification documents will be issued by TABB. *TABB has the right to withdraw TABB qualification, pursuant to provisions contained in this Manual.*

The *General Rules* set forth in this Manual apply to the Technician qualification process, and TABB Technicians.

## 1.6 FOR MORE INFORMATION

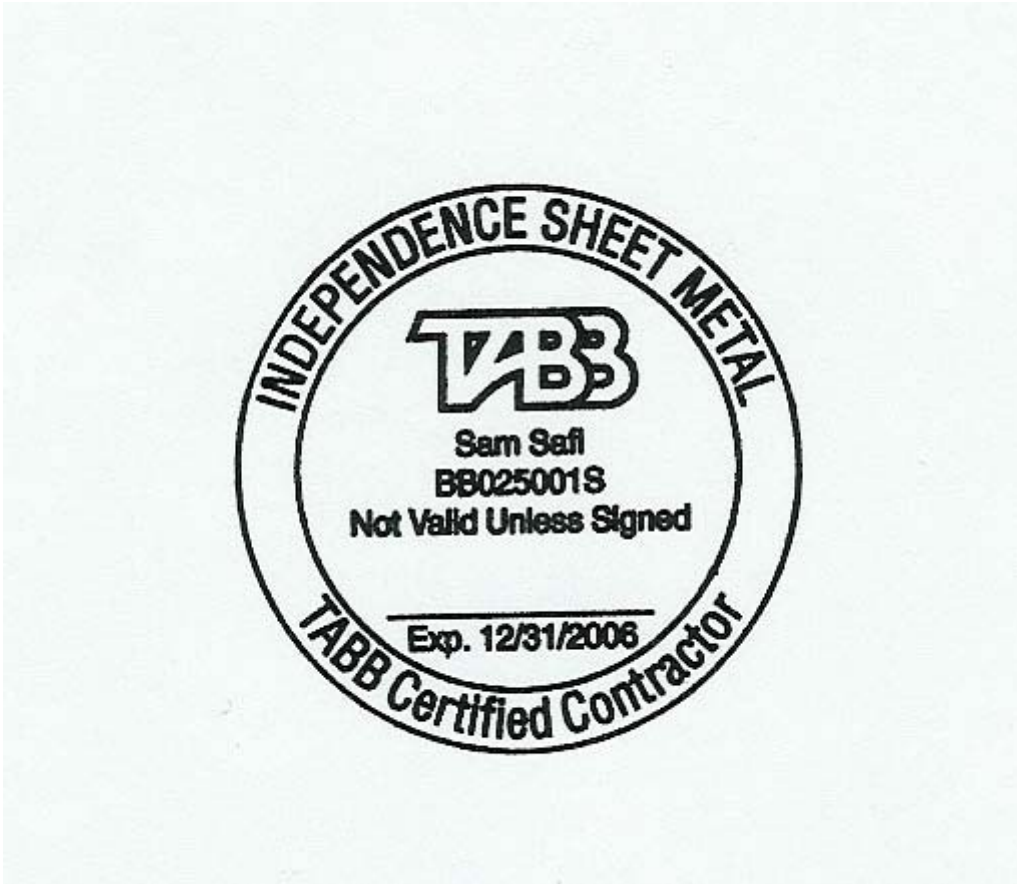
For more information on becoming an ITI - Certified Technician, contact the ITI at:

International Training Institute for the  
Sheet Metal and Air Conditioning Industry  
601 North Fairfax Street, Suite 240  
Alexandria, Virginia 22314  
Attention: Director of Certification  
Telephone: 703/739-7200  
Email: [tab@sheetmetal-iti.org](mailto:tab@sheetmetal-iti.org)  
Website: [www.sheetmetal-iti.org](http://www.sheetmetal-iti.org)

For more information on TABB Supervisor or TABB Contractor Certification, contact TABB at:

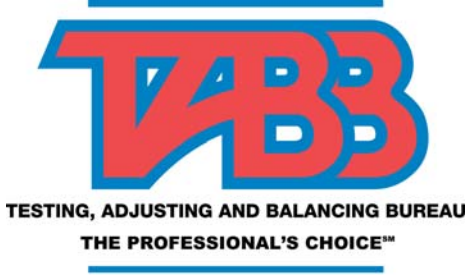
Testing, Adjusting and Balancing Bureau  
International Certification Board (NEMIC)  
601 North Fairfax Street, Suite 250  
Alexandria, Virginia 22314  
Attention: Director of Certification  
Telephone: 800/458-6525 or 703/739-7100  
Email: [info@tabbcertified.org](mailto:info@tabbcertified.org)  
Website: [www.tabbcertified.org](http://www.tabbcertified.org)

TABB Contractor Identification Stamp



## TABB Technician Integrity and Stamp Agreement

### TABB STANDARDS AND STAMP LICENSE AGREEMENT (TECHNICIAN)

<p style="text-align: center;"><u>Form of Stamp:</u></p>	<p style="text-align: center;"><u>TABB Mark:</u></p> <div style="text-align: center;">  </div>
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THIS AGREEMENT (“Agreement”) is made between the NATIONAL ENERGY MANAGEMENT INSTITUTE COMMITTEE FOR THE SHEET METAL AND AIR CONDITIONING INDUSTRY (“NEMIC”) and \_\_\_\_\_, (the “Technician”). This Agreement is effective on the above Issue Date.

The Testing, Adjusting and Balancing Bureau (“TABB”) of NEMIC implements and administers a certification program for certain persons in the field of building and environmental systems (“TAB Work”). NEMIC owns rights to the TABB Technician stamp (the “Stamp”), the imprint of which is above left, and to the TABB mark imprinted above right (the “Mark”).

TABB has and enforces certain standards and rules (the “TABB Standards”) in connection with use of the Stamp and/or the Mark, and otherwise. “TABB Standards” include the ICB Code of Conduct, the “General Rules” and sample specifications and other applicable provisions of the TABB Certification Manual, and other standards from time to time adopted by TABB, and the terms and conditions set forth in this Agreement.

1. Technician Acceptance of TABB Standards. The Technician accepts, and agrees to be subject to, TABB Standards. The Technician acknowledges having received and/or reviewed the ICB Code of Conduct and the TABB Certification Manual.

The Technician shall perform TAB Work solely in accordance with TABB Standards. The Technician acknowledges the right of TABB, and agrees to cooperate with TABB, to ensure that the Technician and the nature and quality of TAB Work performed by the Technician conform to TABB Standards.

Specifically, the Technician acknowledges and agrees that his or her TABB qualification may be lost or withdrawn, and/or she or he may be sanctioned, as provided in or pursuant to the TABB Certification Manual.

2. Use of the Stamp. The Technician will use the Stamp only as to TAB Work performed by him or her in accordance with TABB standards. Use of the Stamp by any person other than the Technician, or use in a manner contrary to the TABB Standards, is forbidden and will result in immediate termination of this Agreement and Technician’s permitted use of the Stamp.
3. License. NEMIC hereby grants to the Technician a nonexclusive and nontransferable license to use the Stamp. This Agreement does NOT permit use of the Mark, except only as it is part of the Stamp.
4. Extent of License. This Agreement is (i) nontransferable; (ii) nonexclusive; and (iii) revocable by NEMIC at any time with or without cause. Upon revocation, the Technician shall cease to use the

Stamp and shall return it to NEMIC.

5. Ownership of the Stamp and Quality Standards. NEMIC is and will remain the owner of the Stamp and the Mark. This Agreement does not give the Technician any right, title or interest in or to the Stamp and/or the Mark (other than a right of use per the terms of this Agreement). The Technician will not challenge NEMIC's ownership of the Stamp and/or the Mark, or the terms of this Agreement.

The Technician will surrender the Stamp to NEMIC upon its demand, whether in connection with loss of the Technician's TABB qualification (per TABB Standards), termination of this Agreement, or otherwise. At that time, the Technician's name will also be removed from TABB's Technician listing.

6. Loss or Damage. If the Stamp is lost or damaged, the Technician shall pay TABB the fee from time to time set by TABB for a replacement.

I AGREE TO THE ABOVE:

Technician's Name: \_\_\_\_\_ Local No.: \_\_\_\_\_

Address: \_\_\_\_\_  
(Please provide a street address - no PO Box) City

State \_\_\_\_\_ ZIP \_\_\_\_\_ Telephone: \_\_\_\_\_

Email \_\_\_\_\_

Technician's Signature \_\_\_\_\_

NATIONAL ENERGY MANAGEMENT  
INSTITUTE COMMITTEE  
By its Testing, Adjusting and  
Balancing Bureau

\_\_\_\_\_  
Signature - Director of Certification

## **Section 2**

### **TABB Certified Supervisor**

#### **2.1 WHAT CERTIFICATION MEANS**

##### **2.1.1 Generally**

TABB Certification of a Supervisor is TABB's statement that the Supervisor is able to supervise testing, adjusting and balancing of building environmental systems to produce the design objectives or optimum system performance. For TABB Certification purposes, a "Supervisor" is the person who, while employed by a TABB Certified Contractor, is responsible and accountable for overseeing, coordinating and ensuring that projects are performed by TABB Certified Technicians in accordance with TABB standards (including the ICB Code of Conduct, the TABB General Rules, and the sample specifications included in this Manual).

##### **2.1.2 Requirement of Qualifying Employment**

**Please Note:** TABB Certified Supervisors may sign reports or otherwise use TABB certification **only during and in the course** of the Supervisor's employment by a TABB Certified Contractor and otherwise in compliance with TABB standards. Loss of qualifying employment will result in indefinite suspension of the Supervisor's right to use TABB certification, until the earlier of: (a) the Supervisor's return to qualifying employment, or (b) expiration of the Supervisor's TABB Certification.

##### **2.1.3 Expectations of a TABB Certified Supervisor**

The TABB Certified Supervisor's project goal is that contract obligations, as set forth in the contract drawings and specifications, are fulfilled to the highest level of quality. A TABB Certified Technician must work directly with the TABB Certified Supervisor and direct the actions of testing, adjusting and balancing technicians on the project. The TABB Certified Supervisor must ensure use of balance procedures that impose minimum restrictions on the HVAC systems. Before performing any TAB work, the TABB Certified Supervisor should review with the TABB Certified Technicians who are performing the work, the following documents:

1. Contract Documents
2. Contract Specifications
3. Addenda
4. Submittal data
5. Shop Drawings
6. Airflow Diagrams
7. Automatic Control drawings

The TABB Certified Supervisor is responsible to verify that instruments used for measurements meet specified accuracies as stated in this manual. The TABB Certified Supervisor is responsible to assure that the entire system has been tested and balanced within tolerances of the specifications, subject to limitations of installed HVAC Systems. Recorded data must represent actually measured or observed conditions. If required, the TABB Certified Supervisor is responsible to report on the progress of work performed as well as report and address any problems encountered.

The TABB Certified Supervisor is responsible to determine when all HVAC systems and components have been tested and balanced within acceptable tolerances or all efforts to achieve design criteria have been exhausted. The TABB Certified Supervisor is responsible to verify that systems have been left in proper working order. The TABB Certified Supervisor is responsible to ensure that any variance from design criteria greater than acceptable tolerances are noted throughout the testing, adjusting and balancing report, that the report

has been done by a TABB Certified Technician (or done by the TABB Certified Supervisor based on work done and information provided by a TABB Certified Technician), and that the report includes the information and data required to provide an exact record of system performance. The TABB Certified Supervisor shall prepare and submit at least three copies of the HVAC final testing, adjusting and balancing report for review by the design professional.

## **2.2 BECOMING CERTIFIED AND REQUIREMENTS**

### **2.2.1 Qualifying For The Test**

To qualify for the TABB Supervisor Certification Exam, the applicant must meet one of the following eligibility criteria:

- A. Has a college/university degree in engineering with at least one year experience in HVAC installation or design work, **OR**
- B. Has a two (2) year associate degree in HVAC with at least three (3) years experience in HVAC installation or design work, **OR**
- C. Is an ITI certified TAB technician and has a minimum of five (5) years experience in HVAC installation or design work (which may include apprenticeship), at least one (1) of which must be in testing, adjusting and balancing, **OR**
- D. Has at least five (5) years experience in testing, adjusting and balancing work and is recommended in writing for the Exam by the applicant's employer. The employer must be a TABB Certified Contractor, or be eligible to be a TABB Certified Contractor except only for the requirements to employ a TABB Certified Technician and/or a TABB Certified Supervisor.

### **2.2.2 Becoming Certified**

To become a TABB Certified Supervisor, the eligible applicant also must:

- A. Pass the TABB Supervisor Examination
- B. Demonstrate a history of testing, adjusting and balancing work that conforms with TABB standards, as determined by TABB, and
- C. Meet all other TABB requirements and conditions of Supervisor, as reflected on the TABB Supervisor application form.

A false or incomplete statement by an applicant in the application form or in the application process will be grounds for denial of certification, or for subsequent withdrawal of certification or other sanction.

## **2.3 THE CERTIFICATION PROCESS**

### **2.3.1 Application Procedures**

The applicant must:

- A. Obtain and complete a TABB Supervisor Application Form (Appendix 2A, or downloadable at [www.tabbcertified.org](http://www.tabbcertified.org)).
- B. Submit the completed application with required attachments to TABB, Edward F. Carlough Plaza, 601 North Fairfax Street, Suite 250, Alexandria, Virginia 22314.

TABB will notify the applicant of the action taken on the application. If the application is not accepted, the applicant may make an Objection as specified in this Manual. *That is the only recourse available to the applicant.*

### 2.3.2 Application and Submissions

All applicants must complete and submit the TABB Supervisor application form, accept the ICB Code of Conduct and submit the current application fee per the TABB Fee Schedule. The application form, Code of Conduct and Fee Schedule are available online ([www.tabbcertified.org](http://www.tabbcertified.org)) and can be completed, accepted and submitted online, with payment. The application and Code of Conduct can be printed, completed, signed and mailed, although online submission is encouraged.

All applicants must submit a resume with the application form, containing the information required by the form. Applicants qualifying under Section 2.2.1(C) or 2.2.1(D) must submit additional information as required by the form.

A photo is not required. However, if the applicant wants his or her photo on his or her certification card, the applicant must submit a passport size photo, preferably in electronic JPEG format.

### 2.3.3 Supervisor Certification Testing

The Supervisor Certification Examination will consist of a written test (the "Exam") intended to gauge how well the applicant understands and applies the TABB Proficiency Requirements (**Appendix 2B**).

- A. The Exam will be administered by the TABB test proctor at sites designated by TABB.
- B. The Exam will be delivered, completed and returned (in print, electronic or other form) under strict security regulations as specified by TABB.
- C. If an Exam score is acceptable, TABB will notify the applicant.
- D. If an Exam score is unsatisfactory, the applicant will be notified. The applicant may request a retest. The request must be made within one year and be accompanied by the TABB retest fee.

The Exam will cover TAB Proficiency Requirements needed to supervise testing, adjusting and balancing processes according to design criteria. **See Appendix 2B.** The applicant is required to pass all components of the Exam.

The TABB *General Rules* are included in this Manual. They include rules on any Test-Related Objections. TABB has certain internal procedures, applicable to all tests.

### 2.3.4 Supervisor Certification

If an approved applicant successfully completes the Exam and becomes certified, the Supervisor's certificate and card will be issued. Certification has a fixed duration that expires as of the standard renewal date set by ICB within the second calendar year after initial certification, unless TABB certification is renewed on or before that renewal date. ICB has the right to withdraw TABB certification ("decertification"), pursuant to provisions contained in this Manual.

The ICB may invite qualified individuals to serve on a Technical Committee for purposes specified by the ICB, which may include development, review, editing and finalizing exam questions and answers. TABB Supervisor certification may be extended to any person who is invited to and does serve on a Technical Committee, if and as the ICB so determines.

TABB Certification alone does not authorize a Supervisor to sign reports as a Certified Supervisor, or otherwise use the certification. Signing reports or other use is authorized only during and in the course of qualifying employment. See Section 2.1.2

## 2.4 GENERAL RULES

The *General Rules* set forth in Section 4 of this Manual apply to the Supervisor certification process, and to TABB Certified Supervisors.

## 2.5 RENEWAL OF CERTIFICATION

Supervisors require the following documents to renew certification:

- A signed and completed renewal application. (Appendix 2C)
- Acceptable CEUs checklist and documentation. 12 hours are required every 2 years or every certification period. See the "Acceptable CEUs for TABB Supervisors" list on [www.tabbcertified.org](http://www.tabbcertified.org). The "Work for Hire" agreement form is also required if questions are submitted in lieu of 4 hours of CEUs.
- Again sign and return the ICB Code of Conduct (available on [www.tabbcertified.org](http://www.tabbcertified.org)).

## 2.6 ACCEPTABLE CEUs

12 hours are required over the course of two years. In addition 4 CEU hours out of the 12 may be earned by developing Supervisory level test questions and answers. Any of the following are acceptable, established by a certificate of completion or letter of attendance, or self-reporting.

Acceptable CEUs
1. Any course endorsed by National SMACNA related to TAB
2. Any course relating to HVAC given by or recognized by National TABB
3. Any course sponsored by a local SMACNA chapter and related to the TAB industry
4. Attendance of the TABB Annual Conference or any TABB course
5. Any course sponsored by an affiliate of TABB
6. Any course put on by the Testing, Adjusting and Balancing bureau (TABB)
7. ASHRAE courses on IAQ, HVAC, TAB topics, or HVAC controls
8. Teaching a course in TAB for a local JATC at least 12 hours per year
9. Presenting a seminar on a topic related to TAB (submit the agenda and presentation given)
10. Writing an article that is published by TABB in the TABB Talk newsletter (this will count for 2 years worth of CEU requirements)

11. Papers published involving TAB (6 CEU hours credited per paper)
12. Supervisor level questions developed (1 CEU hour credited per 4 questions submitted)
13. Others accepted by TABB

**Self-reporting**

You may self-report CEUs in lieu of a certificate or letter. To self-report CEUs, use the form for such purpose on the TABB website ([www.tabbcertified.org](http://www.tabbcertified.org)) or submit a signed statement showing course name, sponsor, location, date or dates, and hours of actual attendance or teaching.

**CEUs earned through study questions**

A Supervisor may earn a maximum of four (4) CEU credit hours for any two-year period, by submitting 4 study questions for each CEU credit hour earned.

For example:

Minimum 4 questions = one (1) hour  
Maximum 16 questions = four (4) hours

Guidelines for developing the TABB Supervisor Exam questions may be obtained from TABB.

**TABB Supervisor Application**

**Sheet Metal Industry International Certification Board (ICB)  
Testing, Adjusting and Balancing Bureau (TABB)**

Applications are available online at [www.tabbcertified.org](http://www.tabbcertified.org). Online submission is encouraged, or applications can be printed and mailed with all required supporting material.

Successful testing is required for certification. Please see the TABB Certification Manual for more information on qualifications and procedures.

**[FORM BEGINS ON NEXT PAGE]**

TABB SUPERVISOR APPLICATION

APPLICANT, PLEASE NOTE that by submitting your application to TABB, you agree to all TABB rules and procedures, including rules and procedures for hearing and resolving your Objections, and anyone's Complaints. See the TABB Certification Manual, or contact TABB, for more details.

GENERAL DATA:

Continue on additional pages if necessary

(Last Name)\_\_\_\_\_ (First Name)\_\_\_\_\_ (MI)\_\_\_\_\_

(Address)\_\_\_\_\_

(City)\_\_\_\_\_ (State)\_\_\_\_\_ (Zip Code)\_\_\_\_\_

(Telephone):\_\_\_\_\_ (Fax):\_\_\_\_\_ (Cell):\_\_\_\_\_

(E-mail address):\_\_\_\_\_

Work Information:

(Current Employer Name):\_\_\_\_\_

(Address)\_\_\_\_\_

(City):\_\_\_\_\_ (State)\_\_\_\_\_ (Zip Code)\_\_\_\_\_

Is your employer signatory to a collective bargaining agreement that provides for contributions directly to NEMIC? \_\_\_\_\_ Yes \_\_\_\_\_ No Local Union number \_\_\_\_\_.

Are you a member of an SMWIA Local Union? \_\_\_\_\_ Yes \_\_\_\_\_ No

(Union membership is not a requirement of TABB Supervisor certification. This is simply for TABB informational purposes.)

EXPERIENCE AND RESPONSIBILITY

Please select and circle one of A B C D, below and submit the requested information to show that you meet the selected criteria:

- A. You have a college/university degree in engineering, and one (1) or more years of HVAC installation or design work experience. Submit a resume detailing your degree and work experience.
B. You have a 2-year associate degree in HVAC, and three (3) or more years of HVAC installation or design work experience. Submit a resume detailing your degree and work experience.
C. You are an ITI certified TAB technician, and have five (5) or more years experience in HVAC installation or design work (which may include apprenticeship), at least one (1) of which must include testing, adjusting and balancing work. Submit a copy of your certification and a resume detailing your work experience.
D. You have at least five (5) years experience in testing, adjusting and balancing work and a letter of recommendation from your employer. Submit a resume detailing your work experience along with the letter of recommendation.

A resume must have your name and address; the name and address of each college or university from which you have a degree, with the type and date of degree received; and the name and address of each employer with whom you have relevant work experience and dates of employment. The nature of work for each employer should be summarized in a sentence or two. YOU AUTHORIZE TABB TO CONTACT ANY EMPLOYER IDENTIFIED BY YOU TO VERIFY INFORMATION YOU PROVIDE.

OTHER CERTIFICATIONS:

Are you certified as a testing, adjusting and balancing supervisor by any other organization?

Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, what is the organization? \_\_\_\_\_

OTHER: TABB certification is available to applicants who have a history of testing, adjusting and balancing work ("TAB Work") that is consistent with TABB standards. Has any of the following ever occurred with respect to, concerning or because of TAB Work that you performed, or with which you were involved:

(a) Denial of your admission to any national organization? Yes \_\_\_\_\_ No \_\_\_\_\_

(b) Expulsion or other sanction by any national organization, or your withdrawal from a national organization under threat of expulsion or sanction? Yes \_\_\_\_\_ No \_\_\_\_\_

If you answered "yes" to any of the above questions and the TAB Work was performed by you, or if your involvement was significant in the matter, please provide the particulars.

**IMPORTANT NOTES TO APPLICANT:**

1. TABB requires that the application be accompanied by a non-refundable application fee. Contact TABB or visit [www.tabbcertified.org](http://www.tabbcertified.org) for current fee information.
2. You **must** submit a resume detailing the experience and responsibility that qualifies you as a supervisor applicant. This is detailed above. If you qualify based on ITI certification as a TAB technician, or based on experience and a letter of recommendation from your employer, you **must** submit a copy of your ITI certification or the letter of recommendation from your employer, along with your resume. Your application is incomplete without resume and, if applicable, a copy of your ITI certification or letter of recommendation from your employer.

A photo is not required. However, if the applicant wants his or her photo on his or her certification card, the applicant must submit a passport size photo, preferably in electronic JPEG format. Also attach additional pages as necessary to provide complete answers.

**Finalizing your application**

The undersigned applicant now applies for TABB certification testing, and agrees to follow all TABB rules and procedures, and abide by all TABB decisions, in respect of TABB certification. In particular, by applying for TABB certification, the applicant acknowledges and agrees:

- (a) To having received and read the TABB Certification Manual;
- (b) That any and all Objections and Complaints (as defined in that Manual) will be resolved solely in accordance with TABB procedures;
- (c) That he or she will be able to sign reports as a TABB Certified Supervisor, or otherwise use TABB certification, only during and in the course of employment by a TABB Certified Contractor; and
- (c) That a false or incomplete statement in this application or in the application process will be grounds for denial of certification or for subsequent withdrawal or non-renewal of certification or other sanction. TABB reserves the right to verify information provided in a resume with the college(s) or university(ies) or employer(s) identified in the resume.

The applicant further understands that TABB may grant or deny certification. If certification is granted, certification may not be renewed if the applicant fails to maintain all eligibility requirements. Certification may be limited or withdrawn in the event of a Complaint against the applicant, or as otherwise provided in the TABB Certification Manual.

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

DATE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

## TABB Proficiency Requirements

### A. GENERAL:

A TABB Certified Supervisor is expected to be knowledgeable and capable in the Core Proficiency Requirements outlined below. Each Supervisor seeking TABB Certification is also expected to be knowledgeable and capable in additional Proficiency Requirements for all areas for which the Supervisor will have testing, adjusting and balancing oversight responsibilities; air and hydronic at a minimum, for a Supervisor.

### B. CORE PROFICIENCY REQUIREMENTS:

#### 1. Mathematics

A TABB Certified Supervisor must be able to perform all applicable math skills associated with the back of the TABB Air Duct Calculator and be able to apply and solve all equations related to testing, adjusting and balancing work.

#### 2. Fluid Flow

A TABB Certified Supervisor must be able to apply the following basic principles of fluid flow to testing, adjusting and balancing work:

Pressure profiling

- A. Pressure (static, velocity and total)
- B. Resistance (friction and dynamic loss)

#### 3. Heat Flow

A TABB Certified Supervisor must be able to apply the following basic principles of heat flow to testing, adjusting and balancing work:

- A. Heat transfer including conduction, convection, and radiation
- B. Temperature

#### 4. Psychrometrics

A TABB Certified Supervisor must be able to plot and understand the following properties of air:

- |                          |                      |
|--------------------------|----------------------|
| A. Dry bulb temperature  | E. Specific humidity |
| B. Wet bulb temperature  | F. Specific volume   |
| C. Dew point temperature | G. Density           |
| D. Relative humidity     | H. Enthalpy          |

A TABB Certified Supervisor must be able to analyze existing testing, adjusting and balancing problems using a psychrometric chart and involving all of the above subject areas listed.

#### 5. Systems in General

A TABB Certified Supervisor must understand how systems are intended to perform and must be able to read and interpret contract drawings including:

- A. Mechanical drawings
- B. Specifications
- C. Submittal data

- D. Addenda and alterations
- E. Shop Drawings
- F. Schematics

6. Automatic Control Systems

A TABB Certified Supervisor must have the ability to understand the sequence of operation of the systems that are related to TAB.

7. Electrical Systems

A TABB Certified Supervisor must be able to apply the basic principles of electricity to testing, adjusting and balancing problems including:

- 1. Definitions of voltage, current, resistance, reactance, capacitance
- 2. Ohm's Law
- 3. Bhp
- 4. Safety

8. Instrumentation

A TABB Certified Supervisor must be able to determine accurate, repeatable, and reliable data from appropriate application of the Temperature, Electrical, Rotating, Air Pressure, Air Velocity, Air Volume, Humidity and Hydronic Pressure Measuring Instruments listed on the TABB Instruments List, and to:

- 1. Select the proper instrument for the task to be performed.
- 2. Properly care for and use the following listed instruments:

9. Computer Skills

- A. Direct Digital Controls – Basic principles
- B. Analog In/Analog Out
- C. Digital In/Digital Out
- D. Proportional Integral Derivative loop sequence

10. Preliminary Testing, Adjusting and Balancing Procedures

A TABB Certified Supervisor must be able to perform initial planning for, and to supervise, testing, adjusting and balancing procedures including:

- A. Preliminary procedures
  - 1. Procurement of data
  - 2. Study of systems and data
  - 3. Report forms

- B. Air distribution system inspection
  - 1. Fans
  - 2. HVAC units
  - 3. Terminal unit/devices
  - 4. Duct systems
  
- C. Hydronic distribution system inspection
  - 1. Pumps
  - 2. Safety low water cut-off
  - 3. Pressure differential on heat exchanger
  - 4. Coils and heat exchangers
  - 5. Refrigeration equipment
  - 6. Chilled water systems
  - 7. Condenser and cooling towers pumps
  - 8. Piping systems
  
- D. HVAC control system

11. Air System Testing, Adjusting and Balancing Procedures

A TABB Certified Supervisor must be able to supervise the balancing of a system using:

- A. Proportionate balancing; or
- B. Sequential balancing

12. Specific Air System Procedures

The TABB Certified Supervisor should assure that the entire system has been tested and balanced within tolerances of the specifications, subject to the limitations of the installed HVAC system, and that all data submitted is accurate, using the most appropriate procedures that will result in the least possible resistance imposed on the balanced system.

- A. Supply air systems
- B. Return, exhaust and relief air systems
- C. Dual duct and single duct (constant volume systems)
- D. Dual duct pressure dependent systems
- E. Variable air volume systems
  - 1. Pressure dependent
  - 2. Pressure independent
  - 3. Induction
  - 4. Fan powered terminals
- F. Induction systems
- G. Special systems
  - 1. Laboratory fume hoods
  - 2. Kitchen hoods
  - 3. Industrial hoods
  - 4. Material handling systems
  - 5. Ceiling and floor plenum systems
  - 6. Cleanrooms

13. Considerations for Testing, Adjusting and Balancing

A TABB Certified Supervisor must be able to perform the following functions in a professional manner:

- |    |   |    |                                  |
|----|---|----|----------------------------------|
| A. | Cooperation with the Technician<br>in problem solving | D. | Supervision of data gathering    |
| B. | Customer relations                                    | E. | Supervision of report writing    |
| C. | Emphasizing Technician Safety                         | F. | Report review/editing/completion |
|    |   | G. | Task scheduling                  |

14. Reference Data

A TABB Certified Supervisor must be able to locate and use all reference and submittal data required for performing testing, adjusting and balancing work.

**C. AIR PROFICIENCY REQUIREMENTS**

1. Air Distribution Systems

A TABB Certified Supervisor must be knowledgeable and proficient in the following items regarding air distribution systems in testing, adjusting and balancing air systems:

- A. Know the purpose for each component in an air system and how these components interact.
- B. Know the effect of duct leakage, resistance, and dynamic loss on balancing, as related to system operating pressure.
- C. Know the function of the following in air distribution systems:
  - 1. Fan laws
  - 2. System effect
  - 3. V-belt drives
- D. Explain the function of each component in the following air distribution systems:
 

1. Supply	5. Reheat or recool systems
2. Return/exhaust	6. Induction boxes
3. Single-zone	7. Dual duct
4. Multi-zone	8. Variable air volume
- E. Duct leakage (pressure) testing
  - 1. Pressure drop test (degradation)
  - 2. SMACNA Leakage testing method

**D. HYDRONIC**

1. Hydronic Distribution Systems

- A. A TABB Certified Supervisor must be able to explain the purpose of each component in a hydronic distribution system and how these components interact with each other.
- B. A TABB Certified Supervisor should understand the effect on balancing of system resistances, dynamic losses, system effects and foreign material in the system.
- C. A TABB Certified Supervisor must be able to apply pump laws.
- D. A TABB Certified Supervisor must be able to explain the function of each component in the following hydronic systems:
 

1. Hot water heating	7. Chilled Water
2. Two-pipe	8. Condensing Water
3. Three-pipe	9. Variable flow systems
4. Four-pipe	10. Primary – secondary system
5. Direct return	11. Primary – secondary - tertiary system
6. Reverse Return	

- E. The TABB Certified Supervisor must be able to explain the purpose for each component in a steam system and how these components interact.

2. Hydronic System Testing, Adjusting and Balancing Procedures

A TABB Certified Supervisor must be able to supervise the balancing of the hydronic systems listed in this section, using the most appropriate procedures that will result in the least possible resistance.

- A. Open system
- B. Closed system
- C. Two-pipe system
- D. Three-pipe system
- E. Primary-secondary system
- G. Primary-secondary-tertiary system

A TABB Certified Supervisor must be able to understand and direct a technician to balance hydronic systems using either of the two methods listed below:

- A. Differential pressure
- B. Temperature difference

Any performance testing to gauge an applicant's proficiency against the above requirements must be at TABB-approved facility.



**Supervisor Renewal Application**

Certification held in (check all that apply):

- TABB    LSS    IAQ    Sound & Vibration    Commissioning

**Applicant Information:**

First Name \_\_\_\_\_ MI \_\_\_\_\_ Last Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ ST \_\_\_\_\_ Zip Code \_\_\_\_\_

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

Email Address \_\_\_\_\_

TABB ID # \_\_\_\_\_

If your employer has changed, please provide the name and address of your new employer:  
 \_\_\_\_\_  
 \_\_\_\_\_

Is your employer signatory to a collective bargaining agreement that provides for contributions directly to NEMIC?  
 \_\_\_\_\_ Yes   \_\_\_\_\_ No   Local Union Number \_\_\_\_\_

Are you a member of an SMWIA local union?   \_\_\_\_\_ Yes   \_\_\_\_\_ No

(Union membership is not a requirement of TABB Supervisor Certification, this is simply for TABB informational purposes.)

**Checklist – Include the following documents:**

- This renewal application, completed and signed (if mailed) or authenticated (if submitted online).
- Evidence of required CEUs per the Certification Manual. 12 hours are required every 2 years or every certification period. See the “Acceptable CEUs for TABB Supervisors” list on [www.tabbcertified.org](http://www.tabbcertified.org). The “Work for Hire agreement form” is also required if questions are submitted in lieu of 4 hours of CEUs.
- Sign and return, or if online, authenticate and submit, the ICB Code of Conduct (available on [www.tabbcertified.org](http://www.tabbcertified.org))

Applicant’s Signature \_\_\_\_\_

Date \_\_\_\_\_

Please submit this application and your supporting documents to:  
 TABB, 601 North Fairfax Street, Suite 250, Alexandria, VA 22314.



**Fee Schedule**

*Step 1: Verify Items Ordered*

The Home Study Course is available free of charge to ITI certified TAB Technicians through your Local JATC.

Item Name	Price	Quantity	Subtotal
Home Study Course	\$95		
Application Fee (Technician)	\$0		
Application Fee (Supervisor)	\$50		
Application Fee (Contractor)	\$50		
Retesting Fee (Supervisor)	\$25		
Retesting Fee (Technician)	\$0		
Lost Stamp Fee	\$50		
<i>TOTAL</i>	-----		

*Step 2: Payment Information (Print clearly)*

Name \_\_\_\_\_

( ) ( ) \_\_\_\_\_ TABB Certified? Y  N   
 Phone No. Fax No.

Check Enclosed  VISA  MASTERCARD

Card Number \_\_\_\_\_

Expiration Date \_\_\_\_\_

Billing Address \_\_\_\_\_  
Street Address

City, ST ZIP E-Mail

Shipping Address (if different from above) \_\_\_\_\_  
Street Address

City, ST ZIP E-Mail

*Step 3: Submit Order (Credit Card only)*

Cardholder Signature: \_\_\_\_\_

(Make Checks Payable to TABB, 601 N Fairfax Street #250, Alexandria, VA 22314) Mail or fax completed form to:

TABB – Testing Adjusting and Balancing Bureau  
 601 N Fairfax Street, #250 - Alexandria, VA 22314  
 703.739.7100 --Fax: 703.683.7615

Once TABB has received your order you will receive a confirmation by email or fax that will note any changes due to product availability or credit card authorization. This information should be used only for your own reference; it cannot be used for tax or billing purposes.

## **Section 3**

### **TABB Certified Contractor**

#### **3.1 WHAT CERTIFICATION MEANS**

TABB Certification of a contractor is TABB's statement that the contractor has all necessary resources, competence and integrity in testing, adjusting and balancing building environmental systems, to produce the design objectives or optimum system performance.

A TABB Certified Contractor must perform all testing, adjusting and balancing work in accordance with applicable TABB standards and procedures, including but not limited to the TABB Code of Conduct, the TABB General Rules, and the sample specifications set forth in **Appendix 3A**.

#### **3.2 WHO IS ELIGIBLE?**

TABB certification is offered for contractors who meet all of the following qualifications and requirements, and who receive TABB approval. The qualifications and requirements are:

- A. Signatory to a collective bargaining agreement that provides for contributions directly to NEMIC, and is current with all financial obligations under that collective bargaining agreement.
- B. Employs at least one TABB Certified Supervisor on a full time basis.
- C. Employs at least one TABB Technician on a full time basis.
- D. Owns and maintains, all testing, adjusting and balancing equipment and instruments per current TABB Instruments list, and maintains the required calibration. The current TABB Instruments list is attached to the TABB Contractor Application form. (**Appendix 3C**).
- E. Possesses and uses the current SMACNA *HVAC Systems Testing, Adjusting and Balancing Manual*. (TABB Certified Contractors should use other SMACNA Manuals and ASHRAE guidelines as are from time to time relevant to the work being performed, although possession and use of other specific Manuals and guidelines is not a prerequisite to certification.)
- F. Applicant approves and adopts the TABB Customer Satisfaction Procedure.
- G. Has completed not fewer than three testing, adjusting and balancing jobs.
- H. Furnishes five (5) references to local architects, building owners, or consulting engineers or contractors, who will vouch for the contractor's competence and integrity in testing, adjusting and balancing work.
- I. Demonstrates experience and ability to testing, adjusting and balancing work that conforms with TABB standards, as determined by TABB.
- J. Pays reasonable application and certification fees as from time to time specified by TABB.

Satisfaction of qualifications and requirements set forth above will be verified by a TABB representative, or otherwise determined by TABB. A false or incomplete statement by an applicant in the application form or in the application process will be grounds for denial of certification, or for subsequent withdrawal of certification or other sanction.

TABB will consider and decide on contractor applications. Notice of TABB's decision will be sent to the applicant. If TABB makes a decision contingent on any required verifications (such as, for example, verification of ownership of required equipment and instruments, and maintenance of required calibrations), TABB may establish a deadline for all required verifications.

A contractor's failure to maintain any eligibility qualifications, as determined by TABB, will result in indefinite suspension of the Contractor's TABB Certification.

Any contractor Objections to any TABB decision described above may be made and will be resolved solely as provided for in this Manual.

### **3.3 THE CERTIFICATION PROCESS**

#### **3.3.1 Application Procedures**

The applicant must obtain and complete a TABB Contractor Application form. (**Appendix 3C, or download at [www.tabbcertified.org](http://www.tabbcertified.org)**). The completed application may be submitted to TABB, Edward F. Carlough Plaza, 601 North Fairfax Street, Suite 250, Alexandria, Virginia 22314.

TABB will determine if the application is sufficient and appears to establish the contractor's eligibility for TABB Certification, or if the application is deficient. If the application is deficient, TABB will notify the applicant. The applicant may correct the deficiencies by submitting a new application or submitting additional documentation requested by TABB. If the applicant disagrees with the deficiency, the applicant may Make an Objection pursuant to provisions contained in this Manual.

If the completed application indicates that the applicant meets eligibility requirements, a TABB representative may arrange a site visit.

#### **3.3.2 Required Verifications**

The Contractor Application form (**Appendix 3C**) identifies written verifications that must be submitted with the application.

#### **3.3.3 TABB Determination on Contractor Certification**

If an application is accepted by TABB, and if all eligibility requirements are verified, certification documents will be issued by TABB. *TABB certification has a fixed duration. TABB has the right to withdraw TABB certification ("decertification"), pursuant to provisions contained in this Manual.*

If an application is denied by TABB, the applicant will be notified. If the applicant wishes, it may make Objection as provided in this Manual. *That is the only recourse available to the applicant.*

### **3.4 GENERAL RULES**

All generally applicable rules of TABB apply to the TABB Contractor Certification Process, and to TABB Certified Contractors. The *General Rules* are set forth in this Manual.

### **3.5 PROVISIONAL CERTIFICATION**

TABB may certify or provisionally certify to contractors who may not fully meet all eligibility

qualifications and requirements, but who in TABB's judgment merit certification (subject to such conditions as TABB may specify). Decisions in this regard are entirely up to TABB.

### **3.6 APPLICANTS WITH MULTIPLE LOCATIONS**

A contractor is certified for a specific office. If a contractor has multiple locations, it may be certified for each separate or branch office that regularly does testing, adjusting and balancing work. To obtain certification for a separate or branch office, both a qualified TABB Certified Technician and a TABB Certified Supervisor must be regularly employed by the contractor at that office, and the required testing, adjusting and balancing equipment and manuals must be maintained at that office as well.

### **3.7 INDEPENDENT TABB CONTRACTOR CERTIFICATION.**

Certification as an Independent TABB Certified Contractor is available to a TABB Certified Contractor who can and does truthfully affirm its independence by means of a sworn affidavit in the form required by TABB. A false statement in the affidavit, or failure to cease a claim of independence after the affidavit ceases to be true (and failure to notify TABB of such a change in circumstance), are grounds for withdrawal of TABB certification. An independent contractor is one with no affiliation with an HVAC mechanical contractor or design engineer, or a manufacturer of HVAC equipment, or with anyone else that interferes with the contractor's independence in testing, adjusting and balancing HVAC systems and/or in preparation of reports.

## TABB General Requirements and Sample Specifications

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Visit the TABB website for additional specifications and TAB report forms

[www.tabbcertified.org](http://www.tabbcertified.org)

### 1. GENERAL REQUIREMENTS

In addition to finding a person who can meet the demanding requirements of the testing, adjusting and balancing (TAB) technician (as the principals of the firm often are too involved to do the TAB work themselves), a complete and accurate set of instruments is necessary to do the TAB work on any commercial or institutional TAB job. The required instruments are detailed in the TABB Instruments List. All of the instruments listed are not needed on each job, but depending on the type of work done by the firm, most of them will be needed.

Sample test report forms may be found in Chapter 15 –*TAB Report Forms* - of the SMACNA *HVAC Systems Testing, Adjusting and Balancing Manual*. **TABB TAB forms are available at [www.tabbcertified.org](http://www.tabbcertified.org)**. These TAB report forms may be copied and used by TABB Certified Contractors to follow procedures and methods outlined in that manual. The forms are preceded by a description of use.

Finally, a sample specification follows that can be used by the heating, ventilating and air conditioning (HVAC) system designer to obtain a high quality, accurate TAB report when all of the methods and procedures found in this manual are followed.

### 2. SAMPLE SPECIFICATION FOR TESTING, ADJUSTING AND BALANCING

The minimum requirements for testing, adjusting and balancing of HVAC distribution systems shall be as follows:

1. The TAB contractor must submit evidence of current certification as a testing, adjusting and balancing contractor, by a nationally recognized certifying organization. Quality assurance by or through that organization should be described.
2. The TAB contractor shall review and become thoroughly familiar with the basic duct and piping installation layout prior to ceiling and wall installation. Prior to any closing-in of ductwork and piping, verify that all fittings, dampers, control devices, test devices and valves are properly located and installed.
3. Examine each air and hydronic distribution system to see that it is free from obstructions. Confirm that all dampers, registers and valves are operating and in a set or full open position; that moving equipment is lubricated and functioning properly; and that the required filters are clean and installed. Request that the installing contractor perform any adjustments necessary for proper functioning of the system.
4. The TAB contractor shall use test instruments that have been calibrated within a time period recommended by the manufacturer or in the SMACNA *HVAC Systems, Testing, Adjusting and Balancing* manual, and that they have been checked for accuracy prior to the start of the testing, adjusting and balancing activity. Instrument calibration forms are available on our website at [www.tabbcertified.org](http://www.tabbcertified.org).
5. Verify that all equipment performs as specified. Adjust variable type drives, volume dampers, control dampers, balancing valves and control valves as required by the TAB work.

6. Adjust each register, diffuser and terminal unit to handle and properly distribute the design airflow within 10 percent of the specified quantities.
7. Adjust all balancing equipment so that each heating/cooling coil is furnished with the design fluid flow within 10 percent of the specified quantities.
8. Document the results of all testing on SMACNA or TABB TAB report forms and submit three copies for approval and record.
9. All TAB work shall be performed in accordance with the methods and the procedures described in the SMACNA *HVAC Systems, Testing, Adjusting and Balancing* manual.
10. The TAB contractor shall become familiar with and comply with the provisions of all national, state, and local codes, ordinances, and safety acts that affect the TAB work.
11. HVAC systems utilizing microprocessor temperature controls, variable speed fans and pumps, and variable air terminal boxes should have the control system contractor on site during all primary system TAB work to provide any software programming or setpoint modifications required.

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***TABB provides alternative, detailed and  
updated specifications at its website:  
[www.tabbcertified.org](http://www.tabbcertified.org)***

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**INTERNATIONAL CERTIFICATION BOARD  
TESTING, ADJUSTING AND BALANCING BUREAU (TABB)  
CUSTOMER SATISFACTION PROCEDURE**

Contractor:

Policy Title:

Effective Date:

**PURPOSE:**

**A formal procedure by which TAB customer complaints can be resolved promptly, fairly, and in a manner that preserves our reputation for integrity.**

**SCOPE:**

This procedure applies to any customer complaints concerning testing, adjusting, and balancing (TAB) work done by our company. The Customer Contact is responsible for receiving and considering all customer complaints, and for implementing this procedure. Any and all customer complaints about our TAB work should be referred to the Customer Contact (identified below.) Only the Customer Contact is authorized to address TAB customer complaints.

**KEY TERMS:**

“Customer Contact” is the individual designated by our company to consider and respond to TAB customer complaints, and otherwise implement this procedure. The current Customer Contact is:

“TAB” refers to testing, adjusting and balancing work.

A “TAB customer” refers to the person (building owner or owner’s agent, general contractor, or mechanical contractor) who has retained our company to perform TAB work. However, if our company has been engaged by a contractor, we also consider the building owner of the owner’s agent as a “TAB customer” for purposes of this procedure.

**NOTICE TO CUSTOMERS:**

- 1) We will advise each person who hires our company for TAB work that we have a formal Customer Satisfaction Procedure. That notice shall be in writing. It may be by transmittal letter that returns the signed contract, or by specific reference in the contract or a contract addendum. The notice to the customer shall consist of the following (or equivalent):

Our company is dedicated to customer satisfaction. We maintain a formal Customer Satisfaction Procedure. If you have any complaint regarding our company’s testing, adjusting and balancing work, please contact [current customer contact] at [phone number]. That individual will make every effort to respond to your complaint by at least the end of the next business day.

- 2) We will respond to each TAB customer complaint as follows:
  - a. If the complaint can be handled by telephone consultation, we will do so. Calls will be made promptly, and courteously. There is no such thing as a “stupid question” from a customer – each and every question and complaint merits our attention and a respectful and complete answer.

- b. Whenever appropriate, written confirmation of advice or direction given in a telephone consultation will be promptly sent to the customer (mailed by no later than the close of the business day after consultation).
- c. If a customer complaint cannot be satisfactorily resolved over the telephone, a TAB technician designated by the Customer Contact will visit the customer's site at the earliest practical opportunity. Generally, a site visit will occur no later than the third business day after it is determined to be necessary. The Customer Contact may direct an earlier site visit to address urgent circumstances. In rare instances, a site visit may be postponed to a later time, if agreeable to the customer.
- d. The technician will visit the site and assess the customer complaint(s). The technician will make every effort to be in touch with the Customer Contact (or the person designated by him or her) by telephone, from the site. If the customer's complaint can be resolved by adjustments, which the technician can perform while at the site, in a reasonable time frame, the technician will do so. If not, the technician will identify the problem(s) and make a complete report to the Customer Contact as soon as practical. Problems which cannot be resolved quickly, by the technician on site, must not be discussed with the customer at that time: rather, the technician will report those problems back to the Customer Contact for him or her to determine appropriate action.
- e. If the visiting technician has corrected the problem, the Customer Contact will follow-up with the customer within three to five business days to ensure the customer's continuing satisfaction.
- f. If the visiting technician has been unable to correct the problem, the Customer Contact will assess the technician's report, determine if any further testing or assessment is appropriate, and contact the customer with a complete response and/or recommendation. Normally that contact is to occur by the end of the next business day after the Customer Contact receives the visiting technician's report.
- g. If the visiting technician's report indicates deficiencies in our TAB work, the Customer Contact will determine appropriate remedial work, determine how best to accomplish that remedial work in a prompt fashion, and will make appropriate arrangements with the customer. If our initial TAB work was faulty or inadequate, leading to the need for the remedial work, all remedial work will be without charge to the customer.
- h. If the visiting technician's report indicates that customer action or error is the cause of the customer's complaint, or that the cause is the system design, system installation, or other matter beyond our control, the Customer Contact will so advise the customer and offer reasonable assistance with appropriate follow-up. The Customer Contact will take care not to make disparaging remarks about the work of any others.
- i. If our company does remedial TAB work, which is required because of system design, installation or other circumstance beyond our control, we will clearly inform the customer of the preparatory work that must be done, to enable us to perform high quality TAB work at a minimum additional cost to the customer.
- j. After any remedial TAB work, whether done with or without charge, the Customer Contact shall follow-up with the customer within a reasonable period (normally three to five business days) after completion of the work, to ensure continuing customer satisfaction.
- k. If the Customer Contact is unable to resolve a customer complaint, the Customer Contact will suggest a meeting between our [Chief Executive Officer or other appropriate officer] and a comparable representative of the customer, to attempt to resolve customer complaints short

of any formal proceeding. If a resolution cannot be obtained, our company will then notify the customer in writing of the TABB Quality Assurance Program, and how to contact TABB.

**VARIANCES:**

**Although this Customer Satisfaction Procedure normally should be followed, it is not a contract. The Customer Contact is authorized to vary from this Procedure, in respect to any customer complaint. Variances should be rare exceptions, not the rule.**

**QUESTIONS:**

Questions concerning the Customer Satisfaction Procedure, and how it is implemented, should be addressed to the Customer Contact identified above.

**LIMITS:**

No employee is to deal with any TAB customer complaints in a manner other than as described in this Customer Satisfaction Procedure.

**CLOSING NOTES:**

All employees of this company are expected at all times to be courteous to and respectful of customers. All employees are to refrain from disparaging comments about work that may have been done by others. If any employee believes that any TAB work done by our company is deficient or defective in any respect that must not be discussed with the customer or anyone else. Instead, report that immediately to the Customer Contact for appropriate correction consistent with this Customer Satisfaction Procedure.

## **TABB Contractor Application**

For an application form, please download an application at [www.tabbcertified.org](http://www.tabbcertified.org), copy the application contained in this manual, or contact TABB at 703/299-5646 to have an application sent to your requested address.

**[FORM BEGINS ON NEXT PAGE.]**

## TABB CONTRACTOR APPLICATION

**APPLICANT: PLEASE NOTE that by submitting your application to TABB, you agree to all TABB rules and procedures, including rules and procedures for hearing and resolving Objections, and customer Complaints. See the TABB Certification Manual for additional details.**

**Note: All fields in this application require a response.**

### **GENERAL DATA:**

(Company Name)\_\_\_\_\_ (Contact Name)\_\_\_\_\_

(Address)\_\_\_\_\_

(Telephone):\_\_\_\_\_ (Fax):\_\_\_\_\_

(E-mail address):\_\_\_\_\_

### **ELIGIBILITY CRITERIA**

Is your firm signatory to a currently effective collective bargaining agreement that provides for contributions directly to the National Energy Management Institute Committee (NEMIC)?

YES \_\_\_\_\_ NO \_\_\_\_\_

AND

Is your firm current with all financial obligations under that collective bargaining agreement?

YES \_\_\_\_\_ NO \_\_\_\_\_

2. Name of TABB Certified Supervisor(s) employed on a full-time basis:

\_\_\_\_\_

3. Name(s) of TABB Technician(s) employed on a full-time basis:

\_\_\_\_\_

4. Attach the current TABB Instruments list with columns 5 and 6 completed. Information you complete in columns 5 and 6 is considered part of the application. You represent it to be true and correct by submitting the completed TABB Instruments list with your application.

5. Do you possess and use the current SMACNA *HVAC Systems Testing, Adjusting and Balancing Manual*?

Yes \_\_\_\_\_ No \_\_\_\_\_

6. Do you have and flow TABB Customer Satisfaction Procedure? Yes \_\_\_\_\_ No \_\_\_\_\_

7. Identify (on a separate sheet) not fewer than three testing, adjusting and balancing projects that your company has completed successfully. Provide the name and identity (building owner, general contractor, mechanical contractor or other) of the person that contracted with your company for the TAB work, a description of the TAB work, the approximate dates of the work and the date of the final TAB report.

**TABB Instruments List - *Minimum Instruments required for TABB Certified Contractor***

1 - Function	2 - Range	3 - Minimum Accuracy	4 - Required Calibration	5 - Specific Information	6 - Calibration Maintained
Temperature Measuring	25°F - 180°F (-40 to 50C) 11	±1° F from 25° - 180° F	24 months	Mfr:  Model  Range of this Instrument:	Y <input type="checkbox"/> N <input type="checkbox"/>  Last Calibration Date: _____
Electrical Measuring Instruments	0 - 600 volts  0 - 100 amps  0 - 30 VDC	3% of Full Scale	Digital – 12 months  Analog – 6 months	Mfr:  Model  Range of this Instrument:	Y <input type="checkbox"/> N <input type="checkbox"/>  Last Calibration Date: _____
Rotating Measuring Instrument	0 to 3000 RPM	± 1% of reading	24 months	Mfr:  Model  Range of this Instrument:	Y <input type="checkbox"/> N <input type="checkbox"/>  Last Calibration Date: _____
Air Pressure Measuring Instrument Static and Differential	1.25 Pa to 4,500 Pa with conversion to inches of water, OR .005" H <sub>2</sub> O – 18' H <sub>2</sub> O	± 3% of reading	24 months	Mfr:  Model  Range of this Instrument:	Y <input type="checkbox"/> N <input type="checkbox"/>  Last Calibration Date: _____
Air Velocity Measuring Instrument	Minimum Range: 100 to 3000 FPM	± 4% of reading	24 months	Mfr:  Model  Range of this Instrument:	Y <input type="checkbox"/> N <input type="checkbox"/>  Last Calibration Date: _____
Air Volume Measuring Instrument	Minimum Range: 20 CFM to 2,500 CFM	± 3% of reading	24 months	Mfr:  Model  Range of this Instrument:	Y <input type="checkbox"/> N <input type="checkbox"/>  Last Calibration Date: _____
Humidity Measuring Instrument	10% - 90% rh	2% RH Range: 10-90% RH	24 months  No calibration required for analog thermometer type of psychrometer	Mfr:  Model  Range of this Instrument:	Y <input type="checkbox"/> N <input type="checkbox"/>  Last Calibration Date: _____
Hydronic Pressure Measuring Instrument Static and Differential	0 – 150 PSI	± 3% of reading	24 months	Mfr:  Model  Range of this Instrument:	Y <input type="checkbox"/> N <input type="checkbox"/>  Last Calibration Date: _____

9. Please attach a list of at least five local architects, building owners or consulting Engineers who will vouch for your competence and integrity in TAB and/or HVAC work.

10. TABB Certification is available to applicants who have a history of TAB and or HVAC work that is consistent with TABB standards. Has any of the following ever occurred with respect to, concerning or because of, TAB Work that you performed, or with which you were involved:

- (a) Contract termination (without completion of TAB Work)? Yes\_\_\_\_\_ No\_\_\_\_\_
- (b) Arbitration? Yes\_\_\_\_\_ No\_\_\_\_\_
- (c) Litigation? Yes\_\_\_\_\_ No\_\_\_\_\_
- (d) Denial of your admission to any national organization? Yes\_\_\_\_\_ No\_\_\_\_\_
- (e) Expulsion or other sanction by any national organization, or your withdrawal from a national organization under threat of expulsion or sanction? Yes\_\_\_\_\_ No\_\_\_\_\_

Answer the above "yes" if the quality or sufficiency of the TAB Work performed by you, or with which you were involved, was of any significance in the matter. If you answer "yes" to any question, please provide particulars.

The undersigned applicant now applies for TABB Contractor Certification, and agrees to follow all TABB rules and procedures, and abide by all TABB decisions, in respect of TABB certification. In particular, by applying for TABB certification, the applicant acknowledges and agrees:

- (a) To having received and read the TABB Certification Manual;
- (b) That any and all Objections and Complaints (as defined in that Manual) will be resolved solely in accordance with TABB procedures;
- (c) To implement and follow the TABB Customer Satisfaction Procedure and to participate in, and implement, the TABB Quality Assurance Program (and to accept TABB rules, procedures and decisions with respect to the same); and
- (d) That a false or incomplete statement in this application or in the application process will be grounds for denial of certification or subsequent withdrawal or non-renewal of certification or other sanction.

The applicant further understands that TABB may grant or deny certification, and that if it grants certification, certification may not be renewed if the applicant fails to maintain all qualifications and requirements for certification. Certification may be limited or withdrawn if TABB so determines in the event of a Complaint against the applicant, or as otherwise provided in the TABB Certification Manual.

## TABB CONTRACTOR

Company Name: \_\_\_\_\_

Owner: \_\_\_\_\_

Signed By: \_\_\_\_\_

Signature: \_\_\_\_\_

(Must be signed by authorized officer/representative)

Title: \_\_\_\_\_

Date: \_\_\_\_\_

ALL STATEMENTS IN THIS APPLICATION, IN SATISFACTION OF ALL ELIGIBILITY REQUIREMENTS, ARE SUBJECT TO VERIFICATION BY TABB. CERTIFICATION MAY BE GRANTED OR DENIED BY TABB.

### Important Notes to Applicant:

1. Certain supplemental information must be submitted with this application. See the Application Checklist on the next page. Attach all required supplemental information. Also attach additional pages as necessary to provide complete answers.
2. Contact TABB if you have questions, or if you need the TABB Certification Manual or any TABB standards, rules or procedures.

**Submitting applications and documents:**

**To submit an application electronically:**

- a) Download the application, open the application, type and fill out all fields. All documents which require signatures must be signed and scanned as an Adobe PDF file. Send all files electronically to: [info@tabbcertified.org](mailto:info@tabbcertified.org)

**Application Checklist**

Required Documentation	Enclosed Items
Signed and fully completed TABB Contractor Application	
Name of at least one TABB Certified Supervisor employed by the contractor on a full-time basis	
Name of at least one TABB Technician employed by the contractor	
Completed TABB Instruments List with calibration dates completed (Question 4)	
Agreed to TABB's customer satisfaction procedure that meets the criteria stated in Appendix 3B of the TABB Certification Manual	
Identification of at least three testing, adjusting and balancing jobs that the contractor has successfully performed.	
Named five references to local architects, building owners, or consulting engineers or contractors, who can vouch for the contractor's competence and integrity in testing, adjusting and balancing work. Form for this purpose follows.	
Signed Conditional Permission for Limited Use of Mark and TABB Contractor Stamp License Agreement (both part of this Appendix 3C).	



List 5 references who are local architects, building owners, consulting engineers or contractors, who can attest to the contractor's competence and integrity in testing, adjusting and balancing work. References will be contacted by TABB representatives.

If you have reference letters, please submit them with this form.

Company Name	Contact	Address	Phone	Email
1.				
2.				
3.				
4.				
5.				



Date: \_\_\_\_\_

**Name and Address of TABB Certified Contractor:**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**Re: Conditional Permission for Limited Use of Mark**

As a TABB Certified Contractor, you are permitted to use the TABB Mark as it is imprinted above, **but only on and subject to the Conditions and Limitations, and Acknowledgments, set forth below:**

**Conditions and Limitations:** You may use the TABB Mark only:

1. So long your company is a TABB Certified Contractor in good standing, with all fees paid;
2. If the Mark is reproduced in the exact manner imprinted above (that is, with the letters stylized in exactly the same manner, and using exactly the same color scheme);
3. On business cards, stationary, business forms (such as bid forms, purchase orders, invoices and the like), and/or your company's website, signage and/or vehicles (all such media for potential use being "Media"); and
4. To identify your company as a TABB Certified Contractor and/or in connection with the simple statement that your company is a TABB Certified Contractor, but not with other marketing or promotional material, absent TABB's prior review of the material and specific consent to use of the Mark in connection with that material.

In any material you may always identify yourself as a TABB Certified Contractor, so long as you remain in good standing with TABB. You may not use the stylized TABB logo with its color scheme in the text of marketing or promotional material (absent TABB's prior, specific consent after review of the proposed use). But at the beginning or end of a marketing or promotional piece, you may identify your company as a TABB Certified Contractor and in connection with that identification only, use the TABB Mark.

You may not use the TABB Mark on Media on which another's name, logo or mark appears, or otherwise in conjunction with another's name, logo or mark, unless both: (1) the owner of the other name, logo or mark has consented to such use and (2) the other name, logo or mark is (a) owned and regularly used by you, (b) that of another nationally recognized testing, adjusting and balancing certification organization, or (c) approved by TABB for the specific proposed placement with the use in conjunction with the TABB Mark. In no event does TABB approval of the use of its Mark in or on the same Media as, or in conjunction with, another's name, logo or mark constitute or imply TABB endorsement of the other organization(s) or its (or their) products or services, or the use (or misuse) of another's name, logo or mark, and you may not state or imply to the contrary.

**Acknowledgments:**

In addition to the conditions and limitations set forth above, by using the TABB Mark, you acknowledge and agree that:

- A. Your permission to use the TABB mark is not transferable to anyone else, is not exclusive (that is, TABB may permit others to use the TABB Mark as well), and may be revoked by TABB at any time, with or without cause. Upon revocation, or if your company ceases to be a TABB Certified Contractor in good standing, your company must cease all use of the TABB Mark;
- B. TABB owns the Mark, and your company will not challenge TABB's ownership of the TABB Mark, or any of the terms and conditions of this letter;
- C. To ensure the integrity of the TABB Mark, while your company is a TABB Certified Contractor, it will ensure that the nature and quality of testing, adjusting and balancing work conforms to standard set or controlled by TABB; and
- D. If your company uses the TABB Mark on signage or vehicles, any damage, defacement or wear that affects the display of the TABB Mark shall be repaired promptly.

Finally, permission to use the TABB Mark on the Conditions and Limitations stated in the above letter is granted only if your company as a TABB Certified Contractor countersigns the accompanying copy of this letter, to accept and agree to all of the terms and conditions stated in this letter, and return it to TABB.

TESTING ADJUSTING AND BALANCING BUREAU  
(a committee of the National Energy Management Institute Committee)

By \_\_\_\_\_,  
\_\_\_\_\_, Administrator

The undersigned certifies that he/she is a duly authorized officer of the TABB Certified Contractor to which the foregoing letter is addressed, and in the name of and on behalf of that TABB Certified Contractor, accepts and agrees to all terms and conditions of the above letter.

TABB Certified Contractor's Name: \_\_\_\_\_

Authorized Officer's/Representative's Signature: \_\_\_\_\_

Signatory's Typed or Printed Name: \_\_\_\_\_

Signatory's Office or Capacity with Contractor: \_\_\_\_\_

Date: \_\_\_\_\_

If the Contractor Applicant is not certified at the time this form is completed and submitted, the agreement shall take effect upon certification.

## TABB STAMP LICENSE AGREEMENT (CONTRACTOR)

<p style="text-align: center;"><u>Form of Stamp:</u></p>          <p>Stamp # _____ Issue Date _____</p>	<p style="text-align: center;"><u>TABB Mark:</u></p>          
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THIS LICENSE AGREEMENT ("License") is entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2001, by and between the NATIONAL ENERGY MANAGEMENT INSTITUTE COMMITTEE FOR THE SHEET METAL AND AIR CONDITIONING INDUSTRY ("NEMIC") and \_\_\_\_\_, (the "Certified Contractor").

The Testing, Adjusting and Balancing Bureau ("TABB") of NEMIC implements and administers a certification program for qualifying contractors in the field of testing, adjusting and balancing of building and environmental systems ("TAB Work"). NEMIC owns rights to the TABB certification stamp (the "Stamp") affixed above, and to the TABB mark imprinted above (the "Mark").

1. License. In consideration for the Certified Contractor's agreement to comply with applicable TABB standards (including the TABB Code of Conduct), and the terms and conditions set forth in this License, NEMIC hereby grants to the Certified Contractor a nonexclusive and nontransferable license to use the Stamp. This License does NOT permit use of the Mark, except only as it is part of the Stamp.

2. Use of the Stamp. Only the TABB Certified Supervisor ("Supervisor") named in the Stamp may sign on the Stamp, when it is affixed to any report on TAB Work or otherwise. The Supervisor may do so only: (i) while employed by the Certified Contractor, (ii) with respect to TAB Work performed by the Certified Contractor and supervised by the Supervisor, and (iii) as otherwise prescribed by TABB standards. Use of the Stamp by any other person, or in any other manner contrary to this Agreement and/or TABB Standards, is forbidden and will result in immediate termination of this License and use of the Stamp under this License.

3. Extent of License. This License is (i) nontransferable; (ii) nonexclusive; and (iii) revocable by NEMIC at any time with or without cause. Upon revocation, or upon termination of the Supervisor's employment with the Certified Contractor (regardless of the reason for termination), the Certified Contractor shall cease to

use the Stamp and shall return it to NEMIC.

4. Ownership of the Stamp and Quality Standards. NEMIC is and will remain the owner of the Stamp and the Mark. This License does not give the Certified Contractor (or the Supervisor) any right, title or interest in or to the Stamp and/or the Mark (other than a right of use per the terms of this License). The Certified Contractor will not challenge NEMIC's ownership of the Stamp and/or the Mark, or the terms of this License.

The Certified Contractor shall perform, and use the Stamp to certify to, TAB Work, and otherwise use the Stamp, solely in accordance with applicable TABB Standards, as from time to time promulgated by TABB (including the TABB Code of Conduct). The Certified Contractor acknowledges the right of NEMIC, and agrees to cooperate with NEMIC, to ensure that the nature and quality of TAB Work performed in connection with use of the Stamp (and/or in connection with the Mark) conform to standards set or controlled by NEMIC (via TABB or otherwise).

5. Loss or Damage. If the Stamp is lost or damaged, the Certified Contractor shall pay NEMIC \$35 for a replacement.

IN WITNESS WHEREOF, this License has been executed by the parties hereto on the date and year first above written.

Certified Contractor's Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
(please provide a street address)  
State \_\_\_\_\_ ZIP \_\_\_\_\_ Telephone: \_\_\_\_\_  
Authorized Officer's Signature \_\_\_\_\_  
Officer's Name and Title: \_\_\_\_\_

NATIONAL ENERGY MANAGEMENT INSTITUTE COMMITTEE

\_\_\_\_\_  
Signature - Director of Certification

CERTIFIED SUPERVISOR'S ACKNOWLEDGMENT:

I am the TABB Certified Supervisor named in the Stamp that is the subject of the above License. I have read that License. I acknowledge and agree that I may use and sign the Stamp only while I am employed by the TABB Certified Contractor named above, and then only in accordance with the License and TABB standards (including the TABB Code of Conduct). I will return the Stamp to that Certified Contractor upon termination of my employment with it (or him or her), regardless of the reason for termination.

Signature of TABB Certified Supervisor: \_\_\_\_\_

NATIONAL ENERGY MANAGEMENT  
INSTITUTE COMMITTEE  
By its Testing, Adjusting and  
Balancing Bureau

\_\_\_\_\_  
Signature - Director of Certification



**Contractor Renewal Application**

Certification held in (check all that apply):

- TABB    LSS    IAQ    Sound & Vibration    Commissioning

**Applicant Information:**

Contractor Company Name _____
Supervisor: First Name _____ MI _____ Last Name _____
Technician: First Name _____ MI _____ Last Name _____
Address _____
City _____ ST _____ Zip Code _____
Home Phone _____ Work Phone _____
Email Address _____
TABB ID # _____

**Checklist – Include the following documents:**

- A signed and completed renewal application.
- You must name at least one TABB Certified Supervisor and Certified Technician. If you wish to name more than one, put the additional names on a separate sheet with designation as Supervisor or Technician.
- An up-to-date TABB Instruments list with columns 5 and 6 completed on a current basis.
- Sign and return, or if online, authenticate and submit, the ICB Code of Conduct (available on [www.tabbcertified.org](http://www.tabbcertified.org)).

\_\_\_\_\_  
Authorized Representative Signature

\_\_\_\_\_  
Date

Please submit this application and your supporting documents to: TABB, 601 North Fairfax Street, Suite 250, Alexandria, VA 22314.



**Fee Schedule**

*Step 1: Verify Items Ordered*

*The Home Study Course is available free of charge to TABB Qualified Technicians through your Local JATC.*

Item Name	Price	Quantity	Subtotal
Home Study Course	\$95		
Application Fee (Technician)	\$0		
Application Fee (Supervisor)	\$50		
Application Fee (Contractor)	\$50		
Retesting Fee (Supervisor)	\$25		
Lost Stamp Fee	\$50		
<b>TOTAL</b>	-----		

*Step 2: Payment Information (Print clearly)*

Name \_\_\_\_\_

( ) ( ) \_\_\_\_\_ TABB Certified? Y  N   
 Phone No. Fax No.

Check Enclosed  VISA  MASTERCARD  DISCOVER

Card Number \_\_\_\_\_

Expiration Date \_\_\_\_\_

Billing Address \_\_\_\_\_  
Street Address

City, ST ZIP E-Mail

Shipping Address (if different from above) \_\_\_\_\_  
Street Address

City, ST ZIP E-Mail

*Step 3: Submit Order (Credit Card only)*

Cardholder Signature: \_\_\_\_\_

(Make Checks Payable to TABB, 601 N Fairfax Street #250, Alexandria, VA 22314)

Mail or fax completed form to:

TABB – Testing Adjusting and Balancing Bureau  
 601 N Fairfax Street, #250 - Alexandria, VA 22314  
 703.739.7100 ---Fax: 703.683.7615

Once TABB has received your order you will receive a confirmation by email or fax that will note any changes due to product availability or credit card authorization. This information should be used only for your own reference; it cannot be used for tax or billing purposes.

## **Section 4**

### **ICB General Rules**

#### **4.1 CODE OF CONDUCT**

The ICB has adopted a Code of Conduct. It is reproduced below. Continuing compliance with the Code of Conduct by every TABB Certified Technician and every TABB Certified Supervisor and TABB Certified Contractor is a continuing requirement for qualification or certification. Violation of the Code of Conduct is grounds for suspension or withdrawal of qualification or certification, or non-renewal.

### **INTERNATIONAL CERTIFICATION BOARD**

#### **Code of Conduct**

Each person certified by ICB or an ICB bureau (all categories being "ICB professionals") is expected to practice his or her profession consistent with the standards and procedures applicable to the certification, and the highest quality workmanship.

##### **CERTIFIED TECHNICIANS AND SUPERVISORS:**

- 1) ICB Certified Technicians will perform their work in an orderly, systematic, well-documented and repeatable manner.
- 2) Certified Technicians will document all findings in an accurate and professional manner so that a Certified Supervisor can review a comprehensive and chronological history of the procedures followed .
- 3) ICB professionals will not make any statements that cannot be substantiated and verified by field measurements or observations.
- 4) Certified Technicians and Certified Supervisors should maintain and improve their technical competence through continuing education, peer counseling and interaction with professionals in their prescribed field of expertise.
- 5) ICB professionals must meet standards and procedures as set by ICB, applicable to their particular certification(s), and adhere to all rules, regulations and obligations of the certification program.
- 6) ICB professionals will maintain their ICB certification.
- 7) Certified Technicians will work in a professional manner so as to ensure their own safety and the safety of their fellow workers while being respectful to the property of the employers, building owner and his representatives.
- 8) Certified Technicians will observe proper protocol when noting contract or installation deficiencies, errors or omissions by others. Notification should first go to the Certified Supervisor for review, then to the employer, unless the employer has established other protocol.

##### **CERTIFIED CONTRACTORS:**

- 1) A Certified Contractor will ensure that a Certified Supervisor oversees and coordinates projects involving work in the area of certification (e.g., tab, sound & vibration, commissioning, etc.), and that those projects are performed in accordance with standards and procedures.
- 2) Certified Contractors must employ Certified Technicians and Certified Supervisors to the extent required for certification, and should seek to employ enough Certified Technicians and Certified Supervisors to perform all work in the area of certification (e.g., TAB, Sound & Vibration, Commissioning, etc.).

- 3) Certified Supervisors and Certified Contractors shall only certify projects undertaken by their own firm.

PROTOCOL:

- 1) Violations of this code of conduct should be reported to ICB.
- 2) This code of conduct remains subject to change by ICB.

#### **4.2 TESTING AND CERTIFICATION FEES**

TABB sets a schedule of testing and certification fees. For an up-to-date fee schedule, visit the TABB website at [www.tabbcertified.org](http://www.tabbcertified.org)

#### **4.3 DURATION OF QUALIFICATION OR CERTIFICATION**

**4.3.1** TABB Certification is for two years. Certification must then be renewed. Qualification as a TABB Certified Technician depends on maintaining TABB-recognized certification. Qualification/certification is always subject to earlier suspension or withdrawal as provided elsewhere in this Manual.

**4.3.2** If TABB permits qualification or certification by reciprocity or provisional qualification or certification, or grants qualification or certification subject to any conditions, TABB may specify the duration of the certification, and any conditions to renewal/continuation of the initial qualification or certification.

#### **4.4 RENEWAL OF QUALIFICATION OR CERTIFICATION**

- (a) Renewal of TABB qualification for a technician depends upon renewal of the underlying, TABB-recognized technician certification.

Subject to Section 4.5, the following paragraphs apply as to TABB Certified Supervisors and TABB Certified Contractors. The Supervisor and Contractor Renewal Application forms, and all information required by those forms, must be submitted at least thirty (30) days before certification expires. TABB will send a renewal notice approximately 120 days before certification expires.

- (b) TABB Certified Supervisor must have attended at least 12 hours of approved continuing education every 2 years or every certification period. See the "Acceptable CEUs for TABB Certified Supervisors" list on [www.tabbcertified.org](http://www.tabbcertified.org). The "Work for Hire agreement form" is also required if questions are submitted in lieu of 4 CEU hours.
- (c) A TABB Certified Contractor must continue to meet all qualifications and requirements for initial certification.

#### **4.5 SUSPENSION OR WITHDRAWAL OF QUALIFICATION OR CERTIFICATION**

TABB specifically reserves the right to suspend the qualification of a TABB Certified Technician, or the certification of a TABB Certified Supervisor or TABB Certified Contractor, or withdraw that qualification or certification ("decertification"), for any one or more of the following:

- (a) Work that does not comply with TABB standards, or with accepted standards of testing, adjusting and balancing work.
- (b) Failure to maintain qualifications and requirements for qualification or certification.
- (c) Violation of the TABB Code of Conduct.

(d) A false or incomplete statement in an application for certification or renewal of qualification or certification, or otherwise in the application or renewal process.

(e) Other grounds which TABB deems to merit suspension or decertification.

Similarly, TABB reserves the right to limit or condition the use of TABB qualification or certification, upon any of the above grounds.

If when considering an application for renewal of certification, TABB has reason to believe that any of the circumstances enumerated above, that could result in suspension or decertification, exist or did exist during the renewal applicants period of certification, TABB may deny renewal of certification or impose conditions on renewal of certification.

## 4.6 OBJECTIONS, COMPLAINTS, AND PROCEDURES

### 4.6.1 Scope and Key Terms

This section applies to all “Objections” and “Complaints.” “Objections” are either “Test-Related Objections” or “General Objections”:

- A. Test-Related Objections are objections by an applicant (including an applicant for renewal who is required to take any TABB test) that are in any manner related to the test itself, such as objections to physical or other arrangements at the test location, the manner in which the test was delivered and/or conducted, any test question, or any other matter which can be corrected or addressed at the time of the test, if known to the test proctor. Any objection to the manner in which a test is scored is not a Test-Related Objection.
- B. General Objections are any objections by any applicant or TABB Certified Technician or TABB Certified Supervisor or TABB Certified Contractor, other than a Test-Related Objection. General Objections may include, for example, objections about the conduct of any TABB representative, objections to a TABB refusal to permit an applicant to retest, or objections to a TABB decision (a decision as to qualification or certification, or otherwise).

“Complaints” include any complaint made or concerning work or conduct (such as a breach of the TABB Code of Conduct or other TABB standards) or use (or alleged misuse) of any certification documents, including an identification stamp.

Thus, an “Objection” is made by someone who seeks or holds TABB Certification, concerning TABB actions or omissions. By contrast, a “Complaint” is made by someone else, or by TABB itself, with respect to work or conduct. In the case of any close calls, TABB will determine whether a given matter is an “Objection” or a “Complaint.”

A “Claimant” is the person making an Objection or Complaint. The “Subject” is the person or entity whose work, conduct or other action or omission is the subject of a Complaint. “Parties” to a Complaint refer to the Claimant, and any Subject. A “Report” is the written report resulting from an investigation conducted in response to an Objection or Complaint. A “Decision” is the written decision of TABB on any part or all of any Objection or Complaint, or an appeal.

### 4.6.2 Exclusivity

***By applying for TABB qualification (as a technician) or certification (as a supervisor or contractor), each applicant agrees that Objections and any Complaints will be resolved solely in accordance with this Manual. Each applicant, and each TABB Certified Technician or TABB Certified Supervisor or TABB Certified Contractor, has no right or expectation of having Objections or any Complaint, or appeal from any TABB Decision, heard or***

***considered in any other forum (whether it be a court, or an arbitration proceeding, or otherwise).***

#### **4.6.3 General Rules on Required Deliveries and Time Limits for the Same**

In the following rules, certain items (such as an Objection or Decision) must be “in writing.” That means it must be typed or legibly handwritten. An Objection must be signed by the Claimant. A Decision will be signed by or at the direction of an authorized representative of the decision making body. Whenever an act is to be done (such as an Objection being made) within a certain period of time, the act is done if the required documentation is actually delivered to the necessary recipient(s) within that period of time, or if that documentation is sent to the required recipient(s) by first class mail, with postage prepaid, and postmarked within that period of time.

#### **4.6.4 Time Limits on Objections**

Objections that are not made within the following time limits will be waived, and will **not be considered**:

1. A Test-Related Objection must be made to the test proctor, or other TABB personnel or representative at the test site. If an applicant makes a Test-Related Objection at the test site, as soon as it is known, but it is not addressed, the applicant must assert the Test-Related Objection in writing to the TABB within ten days after the test date.
2. Any General Objection must be asserted in writing within ten days after the Claimant first knows of the Objection.
3. Each General Objection must state in writing, in reasonable detail, the pertinent circumstances of and reasons for the Objection, and must be signed by the Claimant.

#### **4.6.5 TABB Procedures for Resolution of Objections and Complaints**

TABB will resolve Objections (if made within the time and in the manner provided above), and will resolve Complaints, in accordance with the following general procedures. However, customer Complaints as to testing, adjusting and balancing work will be considered and determined in accordance with the TABB Quality Assurance Program. **TABB reserves the right to waive or modify any particular procedures in any instance.**

TABB administration (Administrator or his designate(s)) will act for TABB on all matters concerning Objections and Complaints, including the conduct of a hearing, unless the Co-Chairs of the TABB, or the full TABB, otherwise determines (in which case the Co-Chairs or the full TABB shall act, as those Co-Chairs or the full TABB shall determine).

- A. Test-Related Objections: The proctor who oversees a test is authorized to resolve any Test-Related Objection. Generally TABB will give great weight to the judgment of a test proctor.

The following steps apply to General Objections and Complaints, and to Test-Related Objections that are re-asserted after the test because not addressed.

- B. Initial Consideration of Objection or Complaint: TABB will review the Objection or Complaint to determine if it merits investigation or further action. A TABB representative may contact the Claimant to clarify any aspects of the written Objection or Complaint, or to obtain further information short of full investigation. Based on the written Objection or Complaint, and any questions, TABB may dismiss the Objection or Complaint, or proceed with an investigation.

If an Objection or Complaint is not dismissed after the preliminary procedures, TABB may call one or more informal conferences with the Claimant, and any Subject. A conference may be called

prior to an investigation, or during or after an investigation. A conference may be called for any one or more of the following purposes:

1. To determine if any part or all of the Objection or Complaint can be resolved to the satisfaction of the Claimant and the Subject without need for an investigation and hearing;
2. To determine if questions of fact can be resolved without need for investigation and/or hearing;
3. To determine if the scope of the investigation can be agreed upon; and/or
4. If a hearing will occur, to: fix the place, date and time of the hearing; set the amount of time allotted for the hearing; set the number of witnesses and/or exhibits that will be permitted at the hearing; determine what evidence must be submitted in advance of the hearing (and set the time limit for doing so); determine if written statements of position should be submitted in advance of the hearing (and to determine the time limit for doing so); and otherwise determine specific procedures and rules for the fair and efficient conduct of the hearing.
5. To determine any other matters that will or may expedite consideration and resolution of the Objection or Complaint.

Final determination with respect to any of the above matters is reserved to TABB.

- C. Investigation: If there will be an investigation, TABB will designate one or more investigators. The investigator shall contact the Claimant, and any Subject. The investigator may inspect (or have inspected) the work to which the Objection or Complaint pertains. Reasonable notice of the date and time of any work site inspection shall be given both to the Claimant and any Subject. Both shall have an opportunity to be present. But if either hinders or disrupts the inspection, or harasses or hinders the inspector(s), and refuses to stop or leave, the inspector(s) may terminate the inspection. TABB may then conclusively assume that the results of the inspection would have been adverse to the person who has interfered with or disrupted the inspection, or harassed or hindered the inspector(s).

The investigator's Report shall be communicated to TABB. TABB shall determine whether to release all or any part of the Report to the Claimant, and/or to the Subject. Generally, TABB will release to those persons all pertinent provisions of the Report, except to the extent TABB determines that release may jeopardize the confidential or trade secret information of any person, or may constitute publication of possibly defamatory statements, or otherwise may not be in the best interest of TABB under the circumstances.

- D. Hearing: Following receipt of a Report, TABB shall give the Claimant and the Subject an opportunity to agree on a resolution. Absent agreement, TABB shall conduct a hearing on the Objection(s) or Complaint(s). At the hearing, the Claimant and the Subject will be given an opportunity to more completely state positions and to present evidence, all within reasonable time and other limitations set by pre-hearing conference as provided above.

Hearings will be held where TABB may determine. A party, and any witness shall be allowed to be present by telephonic conference, or by video conference, if requested and if TABB determines that practical arrangements can be made for telephonic or video conferencing.

- TABB may make a recording of the hearing.
- TABB shall determine who may attend a hearing.
- TABB shall determine all questions of procedure at the hearing. It may require witnesses to testify under oath administered by any duly qualified person. TABB shall determine the order of proceeding. TABB may limit the time anyone is allowed to speak or give evidence at a hearing, and may limit the number of persons who may testify at a hearing.

- E. Evidence: TABB shall consider such evidence as it alone determines to be relevant and material to the Objection or Complaint. TABB shall be the judge of the relevance and materiality of the evidence offered; conforming to legal rules of evidence shall not be necessary. TABB may accept evidentiary statements by affidavit. To that end, TABB may require that any evidence submitted by affidavit be submitted in advance of any hearing.
- F. Waiver of Rules: If a person participates in any conference or attends a hearing, and fails to object at the time of an action or omission, that person will have waived any and all objection to the action or omission in question.
- G. General Principles: TABB shall seek to ensure that investigations and hearings are conducted fairly and impartially, and in a manner that gives the Claimant and the Subject a reasonable opportunity to state their positions and to present relevant and material evidence in support of their positions. All proceedings (informal interviews or questions, conferences, investigations, hearings and any other proceedings) are to proceed in a civil and respectful manner, within time limitations and constraints as specified by TABB. A person who is disruptive, defamatory or insulting, or who hinders any such proceeding, may be excluded from any further participation in the proceedings, and/or TABB may conclusively presume that the person so acted in order to block evidence that would be adverse to the person. TABB may set time limits for a party to submit written statements of position or evidence or other material prior to or after a hearing, may require one or more pre-hearing conferences to settle procedural or other questions in advance of a hearing, and may reopen a hearing to consider further evidence or other information. Any decision by TABB on procedural questions with respect to a conference, investigation, hearing or other proceeding shall be final, conclusive and binding on all persons interested in the matter which is under investigation or consideration.

#### **4.6.6 Request for Reconsideration**

If TABB administration decides an Objection or Complaint in the first instance, a person adversely affected by the decision may request reconsideration by the TABB Co-Chairs. If the TABB Co-Chairs decide any Objection or Complaint in the first instance, or reconsider an initial decision by TABB administration, a person adversely affected by the decision may request reconsideration by the full TABB. Written request for reconsideration must be made within 30 days after the date on which the Decision for which reconsideration is sought was mailed to the person making the request. The request must be accompanied by a copy of that Decision, and must state the reasons why the person disagrees and requests reconsideration.

The TABB Co-Chairs, or the full TABB, as the case may be, may deny the request for reconsideration, or may grant the request and reconsider the Decision. Upon reconsideration, the Decision may be affirmed, modified in whole or in part, or reversed with directions to TABB administration to take such action as the TABB Co-Chairs, or the full TABB, as the case may be, determines to be appropriate.

The Decision on reconsideration will be mailed to the persons whom TABB determines to be interested in the outcome of the request.

Absent intervening action on reconsideration, the initial Decision shall be implemented and enforced according to its terms.

#### **4.6.7 No Further Review**

A Decision on any Objection or Complaint shall be final, conclusive and binding on all interested persons, subject only to modification or reversal of the Decision on reconsideration, as provided above. Except for reconsideration by the Co-Chairs or the full TABB, as provided above, there shall be no other or further review of Decisions by TABB administration, or its Co-Chairs or the full TABB.

#### 4.7 TABB DECISIONS AND SANCTIONS

Following a hearing, if any, on an Objection or Complaint, a Decision on the Objection or Complaint will be rendered. The goal will be to render a Decision within 60 days following the hearing date, but it may take longer.

In response to an Objection, the Objection may be dismissed, or TABB may direct any response to the Objection that is within the power of TABB.

In response to any Complaint, TABB may determine to take no further action, or may sanction (penalize) the Subject.

TABB may assess reasonable costs and expenses of or in connection with proceedings on any Objection or Complaint (including a reasonable allocation of general overhead costs of TABB), as follows:

- (a) Against the Subject of a Complaint, if TABB finds the Subject to have been at fault or to have acted in a manner inconsistent with TABB standards or the TABB Code of Conduct, or
- (b) Against any person who TABB determines made or pursued an Objection, Complaint or response in bad faith, frivolously, or to harass TABB or any individual.

In addition, TABB may direct a Subject of any customer Complaint to perform remedial work, and/or assess all reasonable costs and expenses of work, which TABB determines to be appropriate to resolve the Complaint, as contemplated by the TABB Quality Assurance Program.

Any direction and/or assessment under the preceding provisions may be made without regard to whether TABB takes any other action, or imposes any sanction, against or with respect to any person against whom costs and expenses are assessed. Any such assessment shall be paid on demand by the person against whom it is made. That person shall also pay all costs of collection of any such assessment, including reasonable attorney's fees. TABB shall have the right to recover any such assessment and all such costs of collection in an action in any court of competent jurisdiction, and TABB's costs in connection with any such action, including TABB's reasonable attorney's fees, also shall be paid by the person, as additional costs of collection.

Sanctions which TABB may impose (in addition to an assessment of costs and expenses as provided above) may include any one or more of the following:

- a. Verbal (informal) reprimand or warning;
- b. Written (formal) reprimand or warning;
- c. Limiting or conditioning the Subject's use of TABB qualification or certification, such as (by way of example): (1) requiring the Subject to perform some or all testing, adjusting and balancing work, only under the supervision of another TABB Certified Supervisor or TABB Certified Contractor, as the case may be, (2) restricting use of the Subject's TABB Certification or identification stamp, (3) imposing other limits or conditions on the Subject in respect of testing, adjusting and balancing work, or (4) requiring complete or limited re-testing; or
- d. Withdrawal of the Subject's TABB qualification or certification ("decertification"), with or without a right to re-apply for TABB Certification after either a fixed or an indefinite period of time.

TABB may apply any one or more of the above sanctions without need to first apply any one or more lesser sanctions to the same Subject as to the current or any prior Complaint. Decertification, or strict limitations or conditions on testing, adjusting and balancing work, generally will be indicated if the Subject knowingly and willfully violates the TABB Code of Conduct or other TABB standards in any material respect.

***By applying for TABB qualification or certification, each applicant acknowledges and agrees to be subject to, and to pay any, assessment of costs and expenses in the event of an Objection or Complaint, and further acknowledges that the applicant will be subject to possible sanctions, up to and including decertification, and/or direction to perform remedial work, all as provided above.***

#### **4.8 DIRECTORY**

- A. ICB will distribute a Directory of TABB Certified Contractors.
- B. Listing will be by state/province, then alphabetically.
- C. The listing will contain:
  - 1. Name
  - 2. Area(s) and Type(s) of Qualification or Certification
  - 3. Expiration date of qualification or certification
  - 4. Other information determined by ICB.

## **Section 5**

### **TABB Quality Assurance Program**

#### **5.1 BACKGROUND**

TABB seeks to ensure the integrity of its certification program by: (a) setting eligibility criteria for TABB Certified Supervisors and TABB Certified Contractors, (b) establishing testing procedures for TABB Certified Supervisors, (c) requiring continuing education and continuous compliance with eligibility criteria for renewal of certification, and (d) periodically reviewing its recognition of technician certification. High quality work on the part of TABB Certified Technicians and TABB Certified Supervisors and TABB Certified Contractors (“TABB Professionals”) is essential to integrity of the TABB Certification Program. TABB offers this TABB Quality Assurance Program to help assure high quality work. By accepting TABB qualification or certification, every TABB Professional accepts the responsibilities of this Program.

#### **5.2 QUALITY ASSURANCE**

Every customer of a TABB Certified Contractor shall be entitled to expect: (1) that testing, adjusting and balancing work by the contractor and its TABB Professionals will meet TABB standards; (2) that testing, adjusting and balancing reports provided to the customer will have been prepared by a TABB Certified Technician, and reviewed by a TABB Certified Supervisor; and (3) that the report(s) will include measurements taken accurately with the date and mode of operation of the systems.

#### **5.3 CUSTOMER COMPLAINT PROCEDURES**

##### **5.3.1 Contractor’s Customer Satisfaction Procedure**

Each TABB Certified Contractor is first expected to address customer complaints in accordance with the TABB written customer satisfaction procedure. To obtain and maintain TABB Certification, a contractor must have and follow the TABB Customer Satisfaction Procedure.

##### **5.3.2 Customer Complaints**

If after going through the TABB’s Customer Satisfaction Procedure, a testing, adjusting and balancing customer is still dissatisfied with a TABB Certified Contractor’s testing, adjusting and balancing work or report, the customer may make a complaint to TABB. TABB will consider a customer complaint:

- (a) Only if the customer has sought satisfaction pursuant to the contractor’s customer satisfaction procedure, without success, and
- (b) Only if the testing, adjusting and balancing report has been both signed or stamped by the TABB Certified Technician who performed the work and issued with the contractor stamp (manual stamp or electronic stamp issued by TABB itself) or signature, and
- (c) Subject to all limitations in Sections 5.3.3 and 5.5, below.

The requirement of item (b), above, is to assure that the testing, adjusting and balancing work was in fact performed by a TABB Certified Technician and with appropriate supervision by a TABB Certified Supervisor.

##### **5.3.3 Exclusivity**

A customer who makes a complaint shall be advised by TABB, and asked to acknowledge and agree, that action pursuant to this TABB Quality Assurance Program and the procedures set forth in the TABB Certification Manual will be the customer’s sole remedy.

If a customer initiates arbitration or other action against the TABB Certified Contractor who performed the work in question (“Responsible Contractor”) or other TABB Professionals before

completion of all of the steps contemplated by this Quality Assurance Program, or before the agreed timetable for any mutually agreed corrective work, TABB shall take no further action on or with respect to the customer's Complaint.

## **5.4 TABB ACTION ON CUSTOMER COMPLAINTS**

Specific TABB action on a customer complaint will depend upon the circumstances. Generally TABB will proceed as follows:

### **5.4.1 Preliminary Evaluation and Communication**

TABB administration will contact the customer and the Responsible Contractor usually by telephone at this stage, to collect information and to seek a mutually agreed resolution.

Normally, TABB's administrator (or designee) will review the Responsible Contractor's balancing report, and such other information (e.g., design drawings) that is necessary or helpful to a full understanding of the report and the customer complaint.

Normally, TABB's administrator will then speak with the customer and the Responsible Contractor to seek a mutually agreed resolution. However, if TABB's administrator determines that it may be helpful to a fuller understanding and/or resolution, he or she may require the Responsible Contractor to conduct test measurements or other work to check aspects of the balancing report, or otherwise provide more information. If so, that shall be without charge to the customer, and the Responsible Contractor must complete the work and report back to the administrator within a reasonable time set by the administrator.

As a result of reviewing such information as TABB's administrator (or designee) determines to be pertinent, and consultations with the customer and/or Responsible Contractor as necessary, TABB's administrator may either:

- (a) Direct specific remedial work by the Responsible Contractor (if the administrator finds the same to be warranted), or
- (b) Determine to take no further action on the customer complaint (if the administrator finds that any of the limitations of section 5.5 apply, or if the customer will not agree to the exclusivity of this Program per section 5.3.3).

Normally, the findings and any decision of the TABB administrator at this stage will be summarized in writing and communicated to both the customer and the Responsible Contractor.

TABB's administrator may vary from the above if the administrator believes that to do so in the circumstances will or may expedite resolution of a customer complaint.

### **5.4.2 Job Site Visit**

If the above steps do not resolve the complaint, and if TABB's administrator finds a further TABB action on the complaint is called for, a TABB Professional will visit the job site with representatives of the customer and the Responsible Contractor. Generally, the Contractor representatives should include the TABB Professionals responsible for the work. System design, components and settings will be reviewed, and/or measurements may be taken, to the extent the TABB representative determines necessary for a fair assessment of the complaint. New measurements and other testing, adjusting and balancing work shall be the Responsible Contractor's responsibility, to be performed under supervision of the TABB representative.

If the TABB representative determines that remedial work is appropriate, the TABB representative shall seek a mutually agreed resolution between the customer and the Responsible Contractor. The resolution should identify agreed remedial work, and a mutually agreed timetable.

If remedial work is to be done under TABB supervision, at TABB's direction the Responsible Contractor shall pay reasonable costs and expenses associated with that supervision.

### 5.4.3 Unresolved Complaints

If a complaint is not resolved by a job site visit and agreement, the customer either may make a formal Complaint pursuant to the TABB Certification Manual procedures (which will normally trigger a hearing and decision procedure), or may pursue any right or remedy otherwise available to it. If the customer makes a formal Complaint pursuant to the TABB Certification Manual procedures, the customer will be asked to agree to TABB procedures, authority and the final TABB Decision. Specifically, the customer will be asked to agree that if the Decision finds no fault with the Responsible Contractor or its testing, adjusting and balancing work, the customer shall have no further right or remedy, but if the Decision directs the Responsible Contractor to perform remedial work, the customer shall have all rights and remedies available to it at law to enforce that Decision.

If a customer makes a formal Complaint pursuant to the TABB Certification Manual procedures, the Responsible Contractor shall be bound to the resulting Decision. Specifically, and without limiting any authority of TABB pursuant to the TABB Certification Manual, a TABB Decision may direct the Responsible Contractor to perform specific remedial work, and the Responsible Contractor shall be obligated to do so, at its expense. A TABB Decision which directs the Responsible Contractor to perform remedial work may be enforced by the customer, by court action or otherwise.

If a customer decides not to make a formal Complaint pursuant to the TABB Certification Manual procedures, but pursues any other right or remedy available to it, the Responsible Contractor shall be free to pursue any right or remedy otherwise available to it.

### 5.4.4 Disclaimer of TABB Liability

**In no event is TABB responsible or liable for actual, consequential or other loss cost, expense or damage suffered by a customer or any other person, on account of any failure by any TABB Professional to perform or complete testing, adjusting and/or balancing work, or other work, in accordance with any contractual obligation or other legal duty.**

### 5.4.5 Claims Against TABB

If in connection with making a formal Complaint under TABB Certification Manual procedures, the customer has agreed to be bound by any resulting decision that agreement shall govern. Otherwise, if a customer disputes any TABB determination under or in connection with this Quality Assurance Program, the customer may at its expense submit the dispute to arbitration by the American Arbitration Association under its Commercial Arbitration Rules.

If a Responsible Contractor disagrees with any TABB determination under or pursuant to this Quality Assurance Program, the Responsible Contractor's sole remedy shall be to make an Objection under the procedures set forth in the TABB Certification Manual.

## 5.5 LIMITATIONS

In the event of any of the following, TABB shall take no further action, and shall have no responsibility or liability to any person, under or on account of this Quality Assurance Program:

### 5.5.1 System Changes

If the system on which the testing, adjusting and balancing work was performed (the "System") has been changed, since that work was performed.

### 5.5.2 System Design or Equipment

If TABB reasonably determines that the Complaint is attributable to System design or installation, mechanical or other equipment, work performed by others affecting the System, incomplete work,

which needs to be completed before the System will operate in accordance with its design, or other act or omission which is not the responsibility of the Responsible Contractor or its TABB Professionals. Neither TABB nor any TABB Professionals can be responsible for matters, beyond their control, which may affect System performance.

### **5.5.3 Customer Actions or Omissions**

If a customer fails to fulfill conditions of any mutually agreed remedial work, which are beyond the responsibility of the Responsible Contractor, but which must be fulfilled for the work to be undertaken or successfully completed. In that event, TABB will suspend further action and the Responsible Contractor shall not be responsible or liable on account of any resulting failure to complete the work.

### **5.5.4 Termination of Contractor's Business**

If between completion of the testing, adjusting and balancing work that is the subject of a Complaint, and either the Complaint under this Quality Assurance Program or completion of any agreed or directed remedial work, the Responsible Contractor goes out of business, TABB involvement shall cease. That is simply a matter, which is not within TABB's control.

### **5.5.5 Time Limitation**

TABB will not consider any customer Complaint which is made more than 90 days after the later of the date on which the Responsible Contractor last performed testing, adjusting and balancing work on the project in question, or the date of the Responsible Contractor's balancing report.

### **5.5.6 Unauthorized Report**

TABB will not act under the Quality Assurance Program unless the testing, adjusting and balancing report to the customer bears both a TABB Certified Technician's signature or stamp, and a TABB Certified Contractors' manual stamp or signature or electronic stamp issued by TABB.

## **5.6 REMEDIAL ACTIONS; SANCTIONS**

### **5.6.1 Remedial Actions**

If TABB determines that testing, adjusting and balancing work of a Responsible Contractor did not comport with TABB standards or otherwise meet the reasonable quality expectations of the customer pursuant to Section 5.2 of this Quality Assurance Program, TABB may require such remedial work as TABB deems appropriate. Each TABB Certified Contractor agrees that it is responsible to comply with any such direction. If a Responsible Contractor refuses to do so, it shall on assessment and demand by TABB (to be made, or declined, by TABB in TABB's discretion) pay all reasonable costs and expenses necessary, appropriate or helpful to secure performance of that work by another TABB Certified Contractor. All provisions of Section 5.7, below, shall apply as to any such demand. Upon receipt of such amounts, TABB shall arrange for the remedial work to be done by another TABB Certified Contractor.

### **5.6.2 Sanctions**

A contractor's failure to cooperate reasonably with a customer or with TABB and/or to timely and competently perform all mutually agreed remedial work and/or to pay any and all costs and expenses assessed against it under this Quality Assurance Program, may be grounds for Complaint initiated by TABB and sanctions up to and including withdrawal of TABB certification. A significant number of customer Complaints with respect to testing, adjusting and balancing work, against a single TABB Certified Technician, or a TABB Certified Supervisor or TABB Certified Contractor, also may be grounds for such sanctions and/or non-renewal of TABB Certification.

## 5.7 COSTS

The goal of this Quality Assurance Program is to resolve customer Complaints with minimum cost to customer and the Responsible Contractor. To the extent TABB incurs costs (such as overhead or other costs in connection with a job site visit, or costs or expenses of another TABB Professional if TABB administration is unable to make the jobsite visit), those reasonable costs and expenses will be the responsibility of the Responsible Contractor, even if the Responsible Contractor was not at fault.

**However**, by participating in this Quality Assurance Program, each customer agrees that it will be responsible for any and all such costs, as reasonably determined and assessed by TABB, if and to the extent TABB determines that:

- (a) Such costs and expenses were attributable to a bad faith or frivolous Complaint, or
- (b) The customer changed the System after the testing, adjusting and balancing work was completed, or the customer Complaint is attributable to System design or installation, mechanical or other equipment, or work by someone other than the Responsible Contractor, and by participating in this Quality Assurance Program each customer agrees to pay any and all such costs and expenses that are assessed against it by TABB, in accordance with the foregoing, immediately upon TABB's demand for the same.

If any person against whom costs and expenses are assessed or demanded (pursuant to this or any other provision of this Quality Assurance Program) refuses to promptly pay those costs and expenses, TABB shall be entitled to recover those costs and expenses, as well as its costs of collection (including reasonable attorneys' fees and expenses, including such fees and expenses incurred in connection with any appeal of a lower court's judgment), plus interest on the assessed costs and expenses, from the date demanded until paid at the legal rate, by action in any court of competent jurisdiction.