



**APPLICATION FOR CERTIFICATION AND MEMBERSHIP**

*Application Fee: \$500*

**Company Name** \_\_\_\_\_

**Address** \_\_\_\_\_

\_\_\_\_\_

**Phone** (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

**FAX** (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

**Email** \_\_\_\_\_

**Name and Address of Present Owner(s)** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

1. Educational Background of Present Owner(s):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. Business and work background of Present Owner(s) for the past 10 years.  
(List any affiliation with contractors, manufacturers or engineering firms)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. Date business was Incorporated \_\_\_\_\_
4. Names of Original Corporation Members \_\_\_\_\_  
\_\_\_\_\_
5. Company Banking Facilities:  
Name of Bank \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_  
Phone (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ Contact Name: \_\_\_\_\_
6. Attach current financial statement or adequate proof of financial responsibility, including tax returns for previous 3 years.
7. Attach resumes (education and experience) of employees working directly in the field performing testing and balancing services.
8. Attach ten (10) letters of recommendation, at least five (5) of which must be from professional engineers (P.E.s) affiliated with consulting engineering firms or owners. These letters must be current within one year.
9. Attach a list with the name and address of ten (10) sizeable test and balance projects performed by the present company during the last three (3) year period.
10. Include two (2) preliminary and final comprehensive test and balance reports including both air and water balancing; plans and specifications for the projects; and all correspondence relating to preliminary inspections, plan review, troubleshooting, classification, etc., connected with the project. These reports should demonstrate the abilities of the applicant to analyze, balance and report its findings concerning the project.
11. Attach a list of all instruments with calibration dates currently owned by the company.
12. Attach a notarized written statement certifying that the applicant is an independent agency having no affiliation with engineers, architects, installing contractors, or manufacturers of components of environmental systems. The term "Affiliation" includes a financial interest or exchange of personnel.
13. Submit **ten (10)** complete copies of the application packet (including all attachments) to AABC Headquarters.

14. Please answer the following:

- A. If I am accepted and certified by AABC, I agree to perform all work in accordance with the AABC National Standards.  Yes  No
- B. If accepted and certified, I agree to uphold all professional and ethical standards of AABC.  Yes  No
- C. If certified, I agree to abide by all decisions and bylaws established by the overall membership and Board of Directors of AABC.  Yes  No
- D. Have you applied for AABC membership before?  Yes  No  
If you have, you must reimburse AABC for the cost of the investigation.

Upon receipt of a completed application (10 bound copies of all required information), the application will be reviewed by an appointed official of AABC. If the application is approved, an investigation will be made. The results of the investigation, which will include an on-site inspection of the applicant's methods and procedures in the field, will be submitted to the AABC Board of Directors for review. The results of the investigation along with the details as set forth in this application will determine the acceptance or rejection of the applicant.

If the applying company is accepted for membership and certification, an eligible employee must successfully complete the AABC Test and Balance Engineer's (TBE) examination. If this is accomplished AABC will issue a certification number, and the work performed by the agency will then come under the "National Performance Guaranty" as issued by the Associated Air Balance Council.

**Incomplete applications or applications not accompanied by the requisite \$500.00 application processing fee will not be accepted.**

Application Submitted By: \_\_\_\_\_

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

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

**Associated Air Balance Council  
1518 K Street, N.W., #503  
Washington, DC 20005**

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**FOR AABC USE ONLY**

Date Received: \_\_\_\_\_ Investigating Officer: \_\_\_\_\_

Endorsement: \_\_\_\_\_

Submitted to Board: \_\_\_\_\_ Date: \_\_\_\_\_

# AABC Policies and Procedures

## I. Requirements for Membership

1. The applicant must qualify as an independent testing and balancing firm that has no affiliation with manufacturers of equipment or system components, installing contractors, engineering firms, architects, or any other person or company that could affect the ability of the member to render an independent test and balance report.
2. The applying agency must have been in business as an independent testing and balancing agency (not as an individual) for a period of not less than three (3) years. If it has not been in business for three years, the applicant must demonstrate to the AABC Board of Directors that it has sufficient expertise and experience to adequately and properly perform test and balance work as an AABC agency to be considered for membership. The need for this time period is to provide the Council with means of establishing the ability, business ethics, and experience of the applicant agency.
3. The applying agency must have an established place of business and must maintain properly equipped and staffed office facilities capable of compiling and distributing appropriate reports and data established from field measurements, and of furnishing the consulting engineer with completely reliable documentation of system information that can be verified by the engineering firm or its clients.
4. The applying agency must furnish the Council with satisfactory proof of financial responsibility for the payment of wages, benefits, and contributions to all funds involving both labor and the Council. The satisfactory proof shall be in the form of an adequate bank account, financial statement, and surety bond, as well as copies of tax returns for the previous three (3) years.
5. The applying agency must carry the required coverage for its employees under State Worker's Compensation laws.
6. The applying agency must submit proof that among its field personnel at least one (1) qualified test and balance technician is employed on a full-time basis and is not an owner, partner, corporate officer, or shareholder in such applicant's testing and balancing agency. A brief resume of the experience and education of all owners and field personnel must be provided.
7. The applicant must furnish the council with satisfactory proof of sole ownership and possession of instrumentation as described in the AABC National Standards.
8. The applicant must agree to abide by the Bylaws, Policies and Procedures, and

Code of Ethics of AABC.

- 9 If the applicant is approved, at least one individual from the applying agency must meet the requirements and pass the Test and Balance Engineers (TBE) examination.

## **II. Application Procedures**

1. The applicant shall file a completed application for membership with AABC National Headquarters along with all prescribed application fees. Ten (10) neatly bound copies of the application submittal package are required, including as a minimum, the following items:
  - A. Application
  - B. Personnel Data
  - C. Financial Statements (Audited or prepared by a CPA)
  - D. Equipment and Instrumentation List
  - E. Letters of Recommendation
  - F. Two test and balance reports
2. The application submittal shall include all requested information before being considered for approval by the AABC Board of Directors.
  - A. The applying agency must provide a written notarized statement that the applicant is an independent testing and balancing agency having no affiliation with manufacturers of equipment or system components, installing contractors, engineering firms, architects or any other person or company which could affect the ability of the member to render an independent test and balance report. An AABC member or its owners may not exercise control over operations of another company which could affect TAB work.
  - B. The applicant must furnish the Council with ten (10) letters of recommendation from different companies, at least five (5) of which must be from registered professional engineers (P.E.) affiliated with either a consulting engineering firm or project owner, establishing its qualifications and capabilities as a competent independent testing and balancing agency. These letters must be current and written within one (1) year of the date of the submittal.
  - C. The agency must submit comprehensive air and water test and balance reports for two (2) projects for review by AABC.
  - D. AABC will not warrant any jobs performed by the applicant prior to acceptance by AABC as a member agency. Therefore, the applying agency must disclose any lawsuits or legal action pending on any prior projects.

3. Upon receipt of the application submittal package, a copy shall be provided to each member of the AABC Board of Directors for review; and notification of the applicant shall be sent to all members of the Zone in which the application is filed.
4. The Board of Directors shall review and discuss the application at its next regularly scheduled meeting. Applications for membership shall be voted upon at a Board of Directors Meeting. The Board or any of its members may request that an application be voted upon prior to the next meeting, but such a request must receive unanimous approval by the Board of Directors.
5. Upon approval by the Board, two representatives of AABC will visit the office of the applicant, inspect the facilities and equipment, and review the corporate records. The applying agency must disclose any information that the AABC representative requires in order to conduct a thorough membership investigation.
6. The applicant shall be expected to pay for any expenses incurred by AABC during the investigation process conducted by the Board of Directors.
7. If it is determined by the Board of Directors that the applicant meets the requirements for membership in AABC, he shall be notified by AABC and administered the test and balance engineer's (TBE) examination at National Headquarters within six (6) months of approval.
8. If the applicant receives a passing score of 70% or better on the TBE exam, he shall be issued a registered TBE certification number, and provided with an AABC Annual Certificate and all pertinent membership materials.
9. If the applicant fails to pass the examination, he shall be notified and be given an opportunity to re-take the examination within a time period established by the Board of Directors.
10. Applicants who were previously certified as a TBE, will be required to re-take the TBE examination if they have not been employed by an AABC certified member agency for a period of three (3) years or more.

### **III. Independence**

1. To qualify as independent, a test and balance company must have no affiliation with manufacturers of equipment or system components, installing contractors, engineering firms, architects, or any other person or company which could affect the ability of the member to render an independent test and balance report. An AABC member or its owners may not exercise control over operations of another company which could affect TAB work.
2. The following are considered acceptable activities in the test and balance

discipline: Commissioning, IAQ Testing, Expert Testimony, Troubleshooting, Verification of Controls, Cleanroom Certification.

3. The following are not considered acceptable activities in the test and balance discipline: General Contractor, Electrical Contractor, Service Contractor, Mechanical Contractor, Selling HVAC products, Controls, Design Engineer, HVAC work, subcontracting balancing work to other non-AABC balancing firms or individuals, and (duct cleaning\*).

\* A separate company would be required, controlling interest would be acceptable, prior disclosure to owner required.

#### **IV. Certification Standards**

1. AABC certification is open to testing and balancing agencies throughout the world that meet the requirements for membership as contained herein and pay all applicable fees as may be determined by the Board of Directors.
2. Certification shall be established in the name of the person who passes the TBE examination and in the name of the company represented by the TBE. In the case of death, departure or prolonged absence of the certified TBE, the agency has a grace period of 90 days in which to obtain proper certification as prescribed herein. Any changes in management or ownership of the testing and balancing agency must receive approval by the Board of Directors.
3. Each certified testing and balancing agency shall be issued an annual TBE certificate with a registered TBE number for each TBE employed by the agency. The Annual Certificate is only valid for the year indicated on the certificate.
4. Certification is valid for a period of one (1) year, at which time a review shall be made of all certified agencies and a new Annual Certificate will be issued to those agencies found in compliance with the rules and regulations of AABC.
5. If for any reason a member resigns his membership in AABC or is expelled from membership, his certification is immediately revoked.
6. All certified agencies must have a certified TBE on staff.
7. The Board of Directors has sole responsibility to award, suspend, revoke or otherwise legislate certification.
8. The TBE is responsible for certifying that all work performed by his agency was performed in accordance with the AABC National Standards.
9. The TBE is only authorized to certify the work performed by employees of his agency, or by AABC technicians employed by other AABC certified member agencies.

10. TBEs cannot hold themselves out as TBEs for non-member companies.
11. All members must display the AABC name and logo on their test and balance report cover sheets/title pages. The AABC name and logo cannot be displayed on the same report cover sheet/title page, etc., with the name/logo of any other test and balance organization.

Members that hold certification in another organization must display the AABC name and logo on their report cover sheet/title page and include their TBE certification. They may also include a separate report cover sheet with their other certification information.

12. It is permissible to print the name and/or logo of other organizations to which the member belongs on letterhead, business cards, or other company literature.

## V. TBE Requirements

1. In order to become an AABC certified TBE, the individual must receive a passing score on the TBE examination in addition to meeting the minimum education and experience requirements for certification:
  - A. Graduation from an engineering school or college counts as four (4) years of experience. Each year of training after graduation, as a prospective TBE, counts as one (1) year of experience. Mechanical Engineering graduates must have completed four (4) years of engineering school, plus at least four (4) years of field experience working for a TAB firm, to be eligible for certification.
  - B. Applicants without engineering degrees receive credit as follows: each year of engineering school completed will count as one (1) year of experience; for each year of practice in the field of air conditioning, the person shall be given one (1) year's credit. In order to be eligible for certification, the applicant must have eight (8) year's credit, consisting of at least five (5) years of field experience in system testing and balancing.
2. Certification is issued in the name of the agency and the TBE. It is renewable on an annual basis, pending review of the agency's performance for the preceding year.
3. At least one TBE from each member agency must attend at least one AABC Zone Meeting or the Annual Meeting each year.
4. At least one TBE from each member agency must submit one technical paper to AABC every two years (i.e. 2004-2005, 2006-2007, 2008-2009, etc.).

**Agencies who fail to comply with items 3 and 4 above will not receive**

**Annual Certificates until these requirements are fulfilled.**

**VI. Certified Technician Requirements**

1. Eligibility Requirements
  - A. Education: The applicant must have, as a minimum, graduated from High School or been awarded a GED Certificate.
  - B. Experience
    1. The applicant must have a minimum of four (4) years test and balance experience, unless the applicant can show adequate qualifications as may be determined by the Board of Directors. The applicant must have been employed by a certified AABC member agency for the last 12 months.
    2. The applicant shall be competent in the areas of air, water, sound and vibration.
    3. The applicant shall be able to perform all work in accordance with the AABC National Standards and AABC Test & Balance Procedures.
2. Certification Standards
  - A. AABC Technician Certification is open to test and balance technicians who meet the requirements as contained herein and pay all applicable fees as may be determined by AABC.
  - B. Certification shall be issued in the name of the person who passed the test and balance technician certification examination and in the name of the company represented by the test and balance technician.
  - C. Each certified test and balance technician shall be issued a Test and Balance Technician Certificate and a registered TBT number.
  - D. Certification is renewable on an annual basis. Test and Balance Technicians must pay any required fees each year in order to receive their annual certificate.
  - E. Certification is only valid while the technician is employed by an AABC member company. Certification may also be revoked for non-payment of dues, violation of the Code of Ethics or AABC Policies and Procedures.
  - F. Certified technicians whose certification lapses for more than two years (i.e. certification is not renewed) will be required to re-take the Technician Examination.

- G. Technician Certification (if current) is transferable to another certified AABC member agency upon written request to AABC Headquarters by a certified TBE and payment of a certification transfer fee.
- H. Technicians who voluntarily leave the employ of an AABC member agency and seek employment with another AABC agency will be required to wait a period of six months from the date of hire in which to transfer their certification to the new employer.
- I. All technicians working for AABC member companies who meet the eligibility requirements must be certified. AABC member agencies who fail to comply with the requirement shall be subject to disciplinary action by the Board of Directors.

### 3. Application Procedures

- A. The applicant shall file a completed Technician Certification Application, along with all required fees, to AABC Headquarters.
- B. A letter of recommendation from a certified TBE attesting that the technician has the requisite experience and is employed by an AABC member agency must accompany the application.
- C. Incomplete applications that do not contain all requested information, accompanying materials, and fees, will be rejected.
- D. If it is determined that the applicant meets the required criteria, he shall be administered the AABC Test and Balance Technician Certification Examination.

### 4. Examination

- A. The Test and Balance Technician Certification exam may only be administered by an AABC approved proctor (i.e. Educational Testing Center, Attorney, etc). The AABC Member agency is responsible for notifying AABC Headquarters who will be administering the examination, as well as paying all costs involved to the entity administering the exam.
- B. The technician certification exam will also be offered at AABC Meetings or may be taken at AABC Headquarters.
- C. A passing score of 70 percent or better is required.
- D. Upon receiving a passing score on the technician certification exam, the technician will be issued a registered TBT number and provided a Test and Balance Technician Certificate.

- E. Applicants who do not receive a passing score may re-take the examination.

## **VII. Probation**

1. All new members of AABC are subject to a two-year probationary period, during which time the agency's performance is closely monitored to ensure compliance with AABC standards and guidelines. AABC and/or its investigator will have the right to perform quality checks on any and all jobs or require additional paperwork necessary for a full investigation. All investigations must be conducted by two (2) representatives designated by the Board of Directors. After two (2) years, the agency's status will be reviewed for full membership.
2. Agencies on probation must meet the following requirements during their probationary term:
  - A. A minimum of a \$10,000 bond shall be posted with AABC National Headquarters to ensure prompt payment of association dues and any expenses incurred as the result of complaint investigations.
  - B. The agency shall submit a monthly written record of all jobs obtained, listing the bid amount of each job if the price is public knowledge; the name and address of each project; the name, address and phone number of the architect and engineer; and the total size and description of the project.
  - C. Copies of all National Performance Guaranties must be provided for each project and must also be submitted to AABC on a monthly basis, along with a Completed Project Report. (Contracts obtained prior to the agency's acceptance by AABC, will not be covered by the AABC warranty.)
  - D. The Monthly Job Report (new projects obtained), the Completed Project Report and copies of National Performance Guaranties must be received at AABC Headquarters by the 15th of the month, for the prior month.
3. AABC reserves the right to request and obtain a copy of the test and balance report and other supporting documentation for any project listed by the probationary member. Reports requested by AABC must be submitted in hard copy, suitably bound.
4. AABC reserves the right to select any project for the purpose of conducting an inspection. An inspection may be called within a 48-hour, working-day notice.
5. If such an inspection is called, the member shall be required to provide all instrumentation and pay all expenses in connection with the inspection.

6. All projects in question are subject to further investigation by the AABC Board of Directors.
7. The Zone Vice President is responsible for monitoring the performance of probationary members and for making recommendations to the AABC Board of Directors.
8. If the agency does not meet the full requirements of AABC, or if the agency does not uphold the AABC Code of Ethics, AABC has full authority to evoke or extend probation and conduct all necessary investigations and may have justification for dismissal of the agency from AABC.
9. Probation may also be imposed as a form of disciplinary action by the AABC Board of Directors if any member's conduct or performance falls below acceptable standards.
10. When an agency's conduct or performance is questioned, an investigation will be performed by a non-competing officer of AABC.
  - A. If an agency's conduct warrants probation, terms of the probation will be set by the AABC Board of Directors.
  - B. If an agency's performance warrants probation, the above requirements must be met.
11. AABC is a non-profit organization which is striving for higher standards in the professional field of Total System Balance. AABC has the right to enforce the minimum requirements to ensure all members meet AABC standards.

## **VIII. Payment of Membership Dues**

1. Annual Membership dues will be billed on a monthly basis.
2. Payment is due at National Headquarters no later than the 20th of each month.
3. Late payments and past due balances are subject to a finance charge, which will accrue monthly.
4. Any member delinquent in payment of membership dues for 90 days or more, will be assessed for an amount equal to ½ the total owed, and is subject to automatic suspension from AABC. In order to be reinstated as a member, the company must pay all past dues and assessments in addition to a \$2,500 penalty.

## **IX. Changes in Ownership or Management**

1. In order to insure that member agencies meet the requirements for membership any contemplated change in ownership or management of the agency must be reported to the Board of Directors prior to its implementation.
2. AABC shall promptly review management and ownership changes and determine if these changes alter the ability of the agency to meet the membership requirements. Any agency that fails to meet AABC membership requirements is subject to suspension or expulsion as provided by the AABC Bylaws.
3. Failure on the part of an agency to report management or ownership changes could result in suspension of the membership from AABC.
4. Members who sell their companies or transfer membership to another individual or entity, will automatically forfeit all rights and privileges of AABC membership and certification.

## **X. Reinstatement of Membership**

1. In the event that an AABC member terminates his membership for any reason, membership shall be reinstated in accordance with the following procedures:
  - A. All applicants must reapply for membership in accordance with the published AABC membership requirements and shall satisfy all of these requirements.
  - B. Applicants whose membership has lapsed for more than three years will be required to take the TBE examination.
  - C. All applicants are responsible for payment of all dues, fees, and assessments which were unpaid at the time of termination of AABC membership.

## **XI. Branch Offices**

1. Any office with a local telephone listing and local mailing address shall be considered a branch office.
2. All offices fitting the above description must submit a Branch Office Membership Application to AABC National Headquarters, which is subject to review and approval by the AABC Board of Directors.
3. All branch offices must be owned/operated by the principles of the agency.
4. A branch office must be an office of the parent organization and cannot be a separately incorporated entity.
5. All branch offices must have the same name as their principal office.

6. All branch offices must have either an AABC certified TBE or certified Test and Balance Technician on staff at the branch office location as a full-time employee, who is responsible for overseeing the operations of the branch office.
7. All branch offices must be listed in the AABC annual membership directory.
8. All branch offices must pay annual membership dues/assessments as prescribed by the AABC Board of Directors.
9. All branch offices are subject to the AABC Bylaws, Code of Ethics and the Policies and Procedures.
10. Failure to report the existence of a branch office and/or failure to pay dues for that office shall result in disciplinary action by the AABC Board of Directors.

## **XII. National Performance Guaranty**

1. Members of AABC are authorized to issue a "National Performance Guaranty" on all work performed by the company. The Guaranty helps to ensure the project will be balanced in accordance with plans and specifications and the AABC National Standards.
2. To invoke the AABC Guaranty, the project owner or engineer must file a letter of complaint with AABC National Headquarters, outlining the nature of the problem and requesting assistance from AABC to resolve the matter at hand.
3. Members are not authorized to issue a performance guaranty outside of the country in which the member's origin of membership is established. In countries other than the U.S. and Canada, the chapter must receive approval from the AABC Board of Directors in order to issue a Performance Guaranty.
4. The Guaranty provides for the supervision of a project by AABC if it is determined the member in violation is unable to complete the project in accordance with AABC standards and the project specifications.
5. The member found in violation is responsible for the payment of all costs associated with the investigation and supervision of the project. If the member refuses to pay for the cost of invoking the Guaranty, the association shall be responsible for the payment of all expenses and may assess the membership to cover all associated costs.
6. All work performed by members in the U.S. and Canada is guaranteed by the association unless it can be shown the project cannot be properly balanced due to improper design or installation.
7. The Guaranty cannot be enforced if the member in violation goes out of business or is no longer a member of AABC.

8. Following the procedures outlined in the Policies and Procedures under “Complaint and Appeal Procedures” and “Disciplinary Action” AABC will enforce the Guaranty.

### **XIII. Complaint and Appeal Procedures**

1. All complaints must be filed in writing with National Headquarters before the AABC can respond.
2. Upon receipt of the complaint, the member against whom the complaint was filed shall be promptly notified of its receipt by AABC and provided a copy of the complaint. The member shall have 14 days in which to respond to the complaint.
3. Should the company fail to respond or comply with AABC directives concerning the complaint, the member is subject to immediate dismissal from AABC.
4. The AABC Guaranty is considered null and void if any adjustments or modifications to the system are made by a third party without the express permission of AABC.
5. Any member who knowingly interferes with an AABC investigation and has not received approval from AABC to get involved with project is subject to disciplinary action.
6. A Zone Vice President shall be appointed by the board of directors to direct and coordinate all activities required for the satisfactory resolution of the complaint. The Zone Vice President may at his discretion, enlist the assistance of others with the approval of the Board of Directors.
7. The Zone Vice President will specify a time and location for a meeting of all concerned parties to discuss the complaint and determine any further action to resolve the complaint.
8. The Zone Vice-President is empowered to render a decision on whether the complaint is valid and to make subsequent assignments of responsibility to correct any problems. Should any of the parties involved disagree or take exception to the direction of the Zone Vice President, the matter shall be deferred to the Board of Directors for resolution.
9. Any decision rendered either by the Zone Vice President or Board of Directors shall be in writing and sent to all concerned parties. The notice shall advise the party of its right to appeal by stating in writing the basis for its appeal.
10. Upon review of the notice to appeal, the Board of Directors shall decide whether it is necessary for the member or client to appear in person before the Board to present additional information.

11. Within a reasonable period of time, the Board of Directors shall render its decision, which shall be final and binding.

#### **XIV. Disciplinary Action**

1. The Board of Directors may, at its discretion, determine a form of disciplinary action to be taken against a member for just cause. This would include any conduct or act which violates the rules and regulations of AABC or is deemed to have an adverse effect on the Council.
2. Disciplinary action may be in the form of a warning, fine, assessment, probation, or expulsion from membership.
3. The degree of discipline imposed by the Board of Directors shall depend on the severity of the infraction and past record of the member.
4. If found to be at fault, the member shall, as a minimum, be assessed the total sum of expenses incurred by AABC during the investigation of the complaint, in addition to any labor costs involved as a result of corrective action taken on the project.
5. Should a member fail to comply with the directives issued by the Board of Directors in connection with a complaint, the company is subject to dismissal from AABC.
6. If a complaint is lodged against a member who is found not to be at fault, the client shall be promptly notified and given an explanation for the ruling.

#### **XV. Quality Assurance Program**

1. The AABC Quality Assurance Program provides a means by which AABC can monitor the work of its members on an ongoing basis and allows members the opportunity to receive feedback from their customers through AABC.
2. All members are required to participate in the AABC Quality Assurance Program.
3. Should AABC receive a complaint from an owner or engineer about a project where the Guaranty was not submitted as part of the Quality Assurance Program, the member is subject to probation.

#### **XVI. Member Communications**

1. All member issues, complaints, etc., must be submitted on the approved AABC Business Case Form to AABC Headquarters. Each completed case form received will be distributed to the AABC Board of Directors for discussion and resolution at the next scheduled Board Meeting. The member who filed the form will be sent a written response following the Board Meeting.

2. All requests for agenda items for the Board of Directors Meeting, Annual Meeting or other AABC Meeting (Zone, Semi-Annual, etc.), should be submitted to the AABC Board of Directors thirty (30) days in advance of the meeting.
3. All AABC Committees are required to submit written reports thirty (30) days in advance of the Board Meetings. The Chair is responsible for filing the Committee's report (update on activities, proposed projects, budget requirements, etc.) with AABC Headquarters.
4. AABC Committee Chairs (or their designated representatives) will provide a report on the Committee's activities to the AABC membership at the Annual Membership Meeting.

## **XVII. Requirements for International Members**

1. The applicant must qualify as an independent balancing firm and must be operated separately from any design, installation, and manufacturing company.
2. The applicant must demonstrate to the AABC Board of Directors that it has sufficient experience and expertise to perform work in accordance with AABC Standards.
3. The applicant must provide satisfactory proof of financial responsibility with a year-end financial statement.
4. The applicant must maintain properly equipped and staffed office facilities, employ trained technicians, and possess the required instrumentation for total system balance.
5. The applicant must submit a completed application for membership and agree to comply with the AABC bylaws, policies and procedures, and code of ethics.

## **XVIII. International Application Procedures**

1. The applicant must submit a completed application that includes the following items:
  - Application with general information
  - 5 letters of recommendation from consulting engineers and/or building owners
  - Resumes of company field personnel
  - Sample test and balance report for a complex project
  - List of current instrumentation and calibration dates
  - Company financial statement
2. The application and supporting documentation will be reviewed by the AABC Zone Vice Presidents, who will make a recommendation to the Board as to whether the application should be accepted or denied.

3. If the application is approved, arrangements will be made to administer the TBE exam in the United States at either AABC Headquarters or at a meeting of the association. If the applicant receives a score of 70% or better, the person will be awarded the TBE certificate and the company will obtain membership in AABC.

## **XIX. International Performance Guaranty**

1. The AABC National Performance Guaranty provides assurance to the customer that systems will be balanced in accordance with AABC standards and the project specifications. The Guaranty is only valid in the United States and Canada and only U.S. and Canadian members are authorized to participate in the Guaranty program.
2. Members that are located in other countries that wish to provide the AABC Guaranty must submit a letter of request to the AABC Board of Directors for approval. The letter should include a proposal of how the member(s) intend to fund and administer the program. The member(s) may be asked to submit a performance bond to AABC in an amount prescribed by the AABC Board of Directors.
3. International members are not authorized to perform work in the U.S. unless they are U.S. members in good standing.

# AABC Bylaws

## Article I - Name and Location

**Section 1. Name.** The name of this Corporation shall be the Associated Air Balance Council.

**Section 2. Location.** Offices of this Corporation shall be located in the District of Columbia and/or in such other localities as may be determined by the Board of Directors.

## Article II - Purpose

The purpose for which this Corporation is organized shall be:

To promote the advancement of Independent testing and balancing through education, promulgating standards, developing technology, and disseminating market information.

## Article III - Membership

**Section 1. National Membership.** A firm engaged in the business of field testing and balancing which is Independent and can demonstrate to the AABC Board of Directors that it is capable of performing work in accordance with AABC Standards, is eligible for certification as a member of the organization. To qualify as Independent, a test and balance company must have no affiliation with manufacturers of equipment or system components, installing contractors, engineering firms, architects or any other person or company which could affect the ability of the member to render an independent test and balance report. An AABC member or its owners may not exercise control over operations of another company which could affect TAB work.

**Section 2. National Membership Zones.** The National Membership shall be divided into three geographical areas in the United States designated as Zones. Zone 1 -Eastern, Zone 2 - Central, Zone 3 - Western. Those states which comprise each Zone shall be determined by the Board of Directors. The Zone Membership shall be divided into areas designated as Regions. Those areas which comprise each Region shall be determined by the Board of Directors.

**Section 3. International Membership.** Members headquartered outside the U.S., who are not part of an International Chapter, shall be classified as International Members. International members shall have the same privileges and voting rights as National members and shall pay dues and fees as prescribed by the Board of Directors.

**Section 4. International Chapters.** Shall function subject to the directives of the AABC Board of Directors and in accordance with these bylaws. In that regard, Chapter Bylaws and all policies and procedures established by an International Chapter must be submitted to the AABC Board of Directors for approval prior to their enactment. Chapters not operating in accordance with these bylaws or AABC Board directives may be dissolved by action of the AABC Board of Directors.

Members of International Chapters do not have the same privileges and voting rights as National Members.

**Section 5. Election of Members.** Election to any class of Membership shall be by a majority

vote of the Board of Directors.

### **Section 6. Termination of Membership.**

1. Any member may resign from the Association by submitting a written resignation to the Board of Directors. Such a resignation shall be effective as of the date received at AABC National Headquarters, unless it specifies another date.
2. The Board of Directors may recommend that any member be expelled from the Association for conduct contrary to the objectives of AABC.

After having given the member an opportunity to be heard in his own defense and present the reasons why he should not be expelled at the next Board of Directors Meeting, the Board shall vote on whether or not to expel the member. A majority affirmative vote of the Board shall be necessary to expel a member.

3. Any member who resigns or is expelled shall forfeit any and all rights and privileges in the affairs and/or property of the Association, including dues already paid. Any member who resigns or is expelled shall remain liable for any dues or other charges due and owing at the time of his resignation or expulsion. Any member who resigns or is expelled must return all TBE stamps, Annual Certificates (TBE, Technician, Clean Room, etc.), National Performance Guaranty forms, and any other proprietary AABC materials issued to the member.

## **Article IV - Dues**

**Section 1. Establishment of Dues.** Dues, fees, and assessments, for all classes of Members shall be established by the Board of Directors.

**Section 2. Delinquency and Cancellation.** Any Member delinquent in the payment of dues, fees, and assessments, for more than three (3) months may, at the discretion of the Board of Directors, be dropped from the Membership rolls and thereupon forfeit all rights and privileges of Membership. Late fees and penalties may also be assessed on delinquent accounts.

**Section 3. Application Fees.** Membership application fees shall be established by the Board of Directors and are non-refundable.

## **Article V - Board of Directors**

**Section 1. The Board of Directors.** The Board of Directors shall consist of a Vice President of each Zone, a Director elected from the Canadian Chapter, the President, Executive Vice President, Secretary/Treasurer, and the Immediate Past President.

### **Section 2. Election of Zone Vice Presidents**

1. Solicitations for Zone Vice President nominations will be sent out to the Zone, at least 2 ½ months prior to the Annual Meeting, with a response date of 15 days after the mailing.
2. Candidates will be required to submit resumes/bios no less than 45 days in advance of the Annual Meeting.
3. A letter, along with the slate of candidates and their resumes/bios will be sent to the Zone members at least three weeks prior to the Annual Meeting.
4. The Zone Vice President shall be elected by the respective Zone membership at the Annual Meeting.
5. If a majority, of the eligible voting Zone members are not present at the Annual Meeting, the Zone Vice President will be elected by Mail Ballot.
6. Each Zone Vice President shall be elected for a term of three years commencing on the day of election.
7. The Zone Vice Presidents' terms shall be staggered so that 1/3 of the Directors shall be elected each year.

**Section 3. Vacancies.** In the case of a vacancy on the Board of Directors, such a vacancy shall be filled by the Board for the unexpired term.

## **Article VI - Powers and Responsibilities of the Board of Directors**

**Section 1. Powers and Duties.** The direction, control, and management of the affairs, securities, properties, and funds of the Corporation shall be vested in the Board of Directors, which shall pursue such policies and activities as shall be in accord with the provisions of the Articles of Incorporation, these bylaws, and the appropriate statutes of the United States and the District of Columbia.

**Section 2. Banking.** The funds of the Corporation shall be deposited in such banks or trust companies as may from time to time be designated by the Board of Directors. The securities of the Corporation and other evidence of its property shall be deposited in such safe deposit boxes or vaults and under such safeguards as the Board of Directors shall designate.

**Section 3. Liability.** The members of the Board of Directors and Officers of this Corporation shall not be liable for their acts performed in good faith.

## **Article VII - Meetings of the Board of Directors**

**Section 1. Meetings of the Board of Directors.** The Board of Directors shall hold not less than four (4) regular meetings each year. The Board may hold special meetings upon the call of the President or of any two Directors.

**Section 2. Notice of Meetings.** Written notice must be sent to each Director designating the time and place of any meeting not less than seven (7) days before each meeting.

**Section 3. Quorum.** At all meetings of the Board of Directors, a majority of the Directors shall be necessary and sufficient to constitute a quorum for the transaction of business, and the act of a majority of the Directors present at any meeting at which there is a quorum present shall be the act of the Board of Directors, except as otherwise provided herein. If there be less than a quorum present at any meeting of the Board of Directors, a majority of those present may adjourn the meeting from time to time until a quorum is formed.

## **Article VIII - Meetings of the Membership and Voting**

**Section 1. Annual Meeting.** An Annual Meeting of the corporation membership shall be held each year at such place and on such date as may be determined by the Board of Directors.

**Section 2. Special Meetings.** Special meetings of the Membership may be called at any time by the Board of Directors, or by a petition of 60% of the National membership.

**Section 3. Notice of Meetings.** Written notice of any meeting of the Membership shall be mailed to the last known address of each member not less than ten (10) days before the date of the meeting. Notice of special meetings shall state the purpose for which the meeting is called.

**Section 4. Voting.** At all meetings of the Membership each Member thereof shall have one (1) vote, and may take part in voting only in person. Unless otherwise specifically provided by these bylaws, a majority vote of the Members present and voting shall govern. An eligible voting Member is defined as a National Member (Branch Offices do not have voting privileges at the AABC Annual Meeting). The eligible voting member shall designate one representative of the company to vote on its behalf.

**Section 5. Voting by Mail.** Proposals may only be offered to eligible voting National Members for mail vote upon the approval of the Board of Directors.

**Section 6. Quorum.** At an annual or special meeting of the Membership or a vote by mail, a majority of the eligible voting National Members shall constitute a quorum.

**Section 7. Cancellation of Meetings.** The Board of Directors may cancel any annual or special meeting for cause.

## **Article IX - Officers**

**Section 1. Composition and Powers.** The Officers of the Corporation shall consist of the President, Executive Vice President, and Secretary/Treasurer. The Officers shall have and exercise the authority of the Board of Directors in the management of the Corporation in the interim between meetings of the Board, provided, however, that the Officers shall not have the authority of the Board of Directors in reference to amending, altering, or repealing the bylaws; electing, appointing, or removing any Officer; authorizing, amending, or revoking any

proceedings for the voluntary dissolution of the Corporation; adopting a plan for the distribution of the assets of the Corporation; or amending, altering, or repealing any resolution of the Board of Directors.

## **Section 2. Nomination and Election of Officers.**

- (A) The Board of Directors shall convene prior to the Annual Meeting and nominate candidates to serve as officers of the Corporation. A sufficient number of candidates shall be presented to the membership to ensure that an officer shall be elected from each Zone.
- (B) The officers shall be elected by the eligible voting membership at the Annual Meeting.
- (C) Should a majority of the eligible voting membership not be present at the Annual Meeting, the election of officers will be conducted by mail ballot.

**Section 3. Term of Office.** The terms of office for an officer shall begin immediately upon election and shall be for a term of two years.

**Section 4. Removal.** Any Officer may be removed at any time by an affirmative vote of a majority of the Board of Directors.

## **Article X - President**

The President shall be the Chief Executive Officer of the Corporation and shall preside at all meetings of the Board of Directors. He shall carry out all duties assigned by the Board of Directors, shall have the authority to appoint committees, and shall have active management of the activities of the Corporation.

## **Article XI - Executive Vice President**

The Executive Vice President shall perform such duties as may be assigned him by the Board of Directors. The Executive Vice President shall assume the duties of the President in his absence or inability to act.

## **Article XII - Secretary/Treasurer**

The Secretary/Treasurer shall be one office. He shall keep a record of all proceedings of the Board of Directors and the Membership meetings. He shall maintain appropriate records of the Membership in the Corporation.

The Secretary/Treasurer shall also keep a proper record of all financial transactions of the Corporation. He shall make a report of the Corporation's financial standing at each special or Annual Meeting of the Membership.

The Secretary/Treasurer may at his discretion delegate all or part of his duties. The

responsibilities of his position as stated in these Bylaws shall, however, be solely his.

### **Article XIII - Committees**

The Board of Directors may create such standing or special committees with such membership, duration, functions, and authority as it may deem prudent.

### **Article XIV - Staff**

The Board of Directors shall select and appoint an Executive Director.

### **Article XV - Deeds and Contracts**

All deeds and contracts of the Corporation shall be signed by the President unless the Board of Directors shall, in any specific case or in general cases, by resolution duly adopted, otherwise provide.

### **Article XVI - Indemnification**

The Corporation shall indemnify officers, directors, former officers and directors, and employees to the fullest extent permitted by law for expenses they incur in the defense of any action brought against them by reason of their being or having been officers, directors or employees of the Corporation. This indemnification may include the advancement of costs and expenses incurred with the defense of any such action. However, such indemnification will not be permitted in cases where the officer, director, or employee has been adjudged to be liable for gross negligence or is guilty of misconduct.

### **Article XVII - Use of Funds**

The Corporation shall use its funds only to accomplish the objectives and purposes specified by these bylaws and no part of said funds shall inure, or be distributed, to the benefit of Members of the Corporation.

### **Article XVIII - Amendments**

The Bylaws may be amended by a two-thirds majority vote of the eligible voting membership at the Annual Meeting or Special Meeting of the membership, provided that thirty (30) days' written notice on any proposed amendment shall have been given to the Board.

### **Article XIX - Governing Articles**

The Governing Articles of the Associated Air Balance Council are a part of the bylaws and are those policies and procedures necessary for the proper administration of this Corporation's activities. Such policies and procedures can be amended or new ones adopted by the Board of Directors when and as required for proper administration of activities.

# CODE OF ETHICS

## Preamble

The Code of Ethics signifies voluntary assumption by members of the obligations of self-discipline above and beyond the requirements of the law. Its purpose is to let the public know that members intend to maintain a high level of ethics and professional performance, and to declare that--in return for the faith that the public places in them--the members accept the obligation to conduct their practice in a way that will be beneficial to the public. It gives clients a basis for confidence that members will serve them in accordance with professional standards of competence, objectivity, and integrity.

The Code expresses in general terms the standards of professional conduct expected of test and -balance firms in their relationships with clients, colleagues, members of allied professions, and the public. The Code of Ethics, is mandatory in character, it serves as a basis for disciplinary action when the conduct of a member firm falls below the required standards as stated in the Code.

The Council enforces the Code of Ethics by receiving and investigating all complaints of violations and by taking disciplinary action against any member who is found to be guilty of a Code violation.

## Code of Ethics

The reliance of clients on the accuracy of test-and-balance reports imposes on the profession an obligation to maintain high standards of integrity and competence. To this end, members of the Council have agreed to support the issuance of a National Performance Guaranty. To protect the Council from any undue liabilities in this regard, strict enforcement of the Code of Ethics is necessary. This code has evolved out of the experience of members since the Council was incorporated in 1966. In recognition of their obligation to the public and profession, members have agreed to comply with the following articles:

- 1) We will at all times serve our clients with integrity, competence, and objectivity.
- 2) We will perform all work for clients in accordance with the latest standards published by the Associated Air Balance Council (AABC).
- 3) We will assign personnel to projects who are qualified by knowledge, experience and character, and who will carry out each engagement under the direction of a certified member of the Council.
- 4) We will only certify work on a project which was performed by an employee of our firm.
- 5) We will only serve a client under terms or conditions that will not impair our objectivity, independence or integrity.
- 6) We will advise client personnel of any problems encountered on a project and make subsequent recommendations as required.

- 7) We will review the work of another member only if requested by the client but shall notify the member of the fact that we have been asked to conduct such a review.
- 8) We will be fair in our dealings with our clients and charge reasonable fees commensurate with the nature of services performed.
- 9) We will obey all local state and federal laws, rules and regulations affecting our industry, and will abide by the Code of Ethics, Bylaws, and Policies and Procedures of AABC.

# **AABC Test and Balance Report**

## **Introduction**

AABC has built a reputation for preparing and submitting the most accurate, thorough test and balance reports in the industry. As a result, owners, engineers, and prospective AABC members regularly contact the Council to request a definition of what a top-quality report should contain, and how it should be prepared.

## **Definition**

AABC, in its National Standards, states: "A report is a record of actual test and balance results. This report shall reflect actual tested and observed conditions of all systems and components during the test and balance. The report shall be certified, dated, and signed by the certified test and balance engineer."

## **Submittals**

Within 30 days of award of contract, the test and balance agency shall submit a complete "Submission Report" which shall include the following, as a minimum:

1. A company resume listing its personnel and project experience in air and hydronic balancing.
2. An inventory and calibration data of all instruments and devices in possession of the balancing agency.
3. A working agenda that includes procedures for testing and balancing each air and water flow system.
4. All test and balance report forms and field data sheets that will appear in the final report, with all design data already filled in.
5. A written, system-by-system, description of the measurements, test locations, and procedures that will be employed during the test and balance.

The format of the Submission Report shall be the same as outlined below for the final TAB report. The Submission Report should, in effect, be a final test and balance report, complete except for the site-inspection reports, measured data, discussion, and correspondence.

Balancing shall not commence until the submission report has been approved by the owner or owner's representative.

## **Pre-Construction Plan Check**

If the testing and balancing agency is to do a pre-construction plan check, the agency shall review project documents and contractor submittals for any conditions that would inhibit proper balancing or system operation. This review should include checking the location and type of volume dampers; inlet conditions at air terminals, valves, and HVAC equipment; location, type, and size of balancing valves, flow metering stations, and automatic control valves in the water flow systems; location of pressure sensors in the air and water distribution systems; automatic control systems; and sheet metal shop drawings and piping diagrams. The testing and balancing agency shall submit its written conclusions and recommendations, and include these findings in the final test and balance report.

### **Job Site Inspections**

During construction, the balancing agency shall inspect the installation of piping, sheet metal work, temperature controls, flow meters, pressure taps, strainers, and other components of the HVAC system, as specified in the contract documents. The agency shall note any deficiencies and submit them, in writing, to the owner or the owner's representative. These inspection reports should also be included in the final test and balance report.

### **Final Test and Balance Report**

The testing and balancing agency, using the field data sheets, test forms, and procedures it outlined in its submittals, performs and records its measurements, and completes the final test and balance report. At a minimum, the report shall include:

**1. Preface**

A general discussion of the system, any abnormalities and problems encountered.

**2. Instrumentation List**

The list of instruments including type, model, manufacturer, serial number, and calibration dates.

**3. System Identification**

In each report, the VAV boxes, zones, supply, return, and exhaust openings, and traverse points shall be numbered and/or lettered to correspond to the numbers and letters used on the report data sheets.

**4. Air Handling Equipment**

A. Manufacturer, model number, and serial number.

B. All design and manufacturer related data.

- C. Total actual CFM by traverse if practical, if not practical the sum of the outlets may be used, or a combination of each of these procedures. For specific systems, such as ones with diversity, see the AABC National Standards.
- D. Suction and discharge static pressure of each fan, as applicable.
- E. Outside air and return air total CFM.
- F. Actual operating current, voltage, and brake horsepower of each fan motor.
- G. Final RPM of each fan.
- H. Fan and motor sheave manufacturer, model, size, number of grooves, and center distance.
- I. Belt size and quantity.
- J. Static pressure controls' final operating set points.

## **5. Pumps**

- A. Manufacturer, size, and serial number.
- B. All design and manufacturer's related data.
- C. Pump operating suction and discharge pressure and final total dynamic head.
- D. No flow (pump discharge valve closed) suction and discharge pressure and corresponding total dynamic head. This procedure is to determine actual impeller size.
- E. Rated and actual operating current, voltage, and brake horsepower of each pump motor.
- F. Submit pump curve showing design, operating, and no-flow points of operation.

## **6. Chillers**

- A. Manufacturer, model number, and serial number.
- B. All design and manufacturer's rated data.

- C. Rated and actual pressure drop across evaporators and condensers and related GPM.
- D. Entering and leaving water temperatures.
- E. Rated and actual operating current and voltage.

**7. Heat Exchangers**

- A. Manufacturer and model number.
- B. All design and manufacturer's related data.
- C. Service and location.
- D. Actual pressure drop and related GPM or steam pressure, primary side.
- E. Actual pressure drop and related GPM, secondary side.
- F. Primary side entering and leaving temperatures.
- G. Secondary side entering and leaving temperatures.
- H. Temperature control setting.

**8. Heating & Cooling Coils**

- A. Manufacturer.
- B. All design and manufacturer's related data.
- C. Rated and actual water pressure drop through each coil and related GPM.
- D. Rated and actual static pressure drop across each coil.
- E. Entering and leaving water temperatures.
- F. Wet bulb and dry bulb temperatures entering and leaving each cooling coil; dry bulb temperatures entering and leaving each heating coil.

**9. Electric Heating Coil/Duct Heater**

- A. Manufacturer and model number.
- B. All design and manufacturer rated data.
- C. Actual operating current and voltage.

D. Coil location and identification number.

**10. Cooling Tower (if applicable)**

A. A copy of the Cooling Tower Test Data Summary Sheet.

B. A sketch of the cooling tower installation showing tower orientation, principal dimensions, location of temperature and flow rate measurement points, and notation of any building obstructions, or other equipment in the immediate vicinity of the tower.

C. Copies of completed test data sheets.

D. A copy of test calculations, including performance curves and cross plots.

E. Observations on compliance with Test Code limitations and uniformity of test conditions. Include comments on any suggested changes to the tower such as increasing fan speed or blade pitch to obtain rated brake horsepower.

## **AABC Dues & Fee Schedule**

Membership Application Fee:	\$500.00
Monthly Dues:	\$550.00 (includes registration fee for AABC Annual Mtg.)
Branch Office Dues:	\$235.00 (per month for each additional office)
TBE Application Fee:	\$150.00
Certified Technician App. Fee:	\$100.00

Thank you for your interest in the Associated Air Balance Council!