

The NEBB Professional

2026 – Quarter 2

Cover Story

Beyond “Traditional”: What Data Center Commissioning Really Entails

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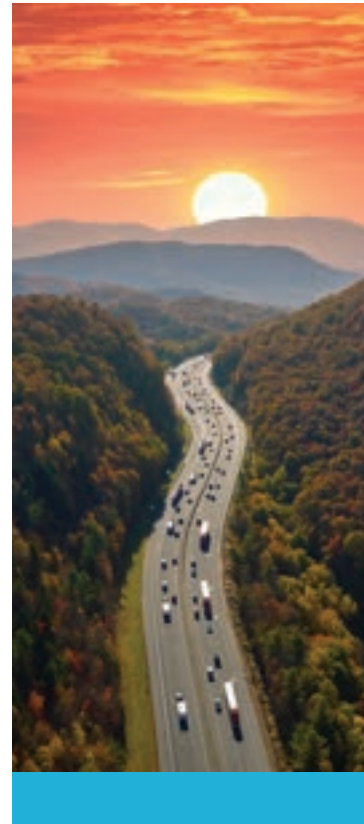
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President's Message

Remaining Resilient Through Progress

One of the strengths of NEBB has always been our ability to adapt and evolve while remaining firmly committed to the principles that built our organization. As our industry continues to change, NEBB must continue to move forward, ensuring that our standards, certifications, and technical programs remain relevant, practical, and respected throughout the marketplace.

Resilience is not simply about weathering change. It is about embracing opportunities for improvement while maintaining the integrity and technical excellence that define who we are.

Throughout NEBB's history, our standards have served as the foundation of our certification programs and the benchmark for quality within the industries we serve. These standards are not static documents. They must continually develop to reflect advances in technology, changes in building systems, emerging industry practices, and the needs of both our certified firms and the clients they serve.



Rodney Hinton

Over the coming months, NEBB will continue important work related to the development and refinement of our standards, including updates to both the Testing, Adjusting, and Balancing (TAB) Standard and the Cleanroom Performance Testing (CPT) Standard. These efforts represent significant investments in the future of our organization and demonstrate NEBB's commitment to remaining the recognized leader in technical certification and procedural standards. Thank you to both the TAB and CPT committees for completing these standards.

Like the honeycomb, standards are the structure that allows the honey (specifications) to be produced. The Honeycomb is the absolute lifeblood of a bee colony. It serves as the physical structure of the hive (the committee), acting simultaneously as a nursery for raising baby bees (young energetic professionals) and a heavy-duty pantry (lots of war stories from seasoned





CPs) for storing their food, honey (wisdom) and pollen (knowledge). Without it, the colony (NEBB) cannot survive. The development of standards is often one of the least visible, yet most important responsibilities performed by our volunteers. Committee members dedicate countless hours reviewing technical content, evaluating industry changes, discussing practical application in the field, and ensuring that each revision continues to uphold the level of quality expected of a NEBB standard. Their work directly impacts the value of every certification NEBB issues. As these projects move forward, I encourage members to remain engaged in the process. The strength of NEBB has always been rooted in the knowledge, experience, wisdom and dedication of its volunteers. Whether serving on a committee, supporting chapter activities, participating in technical discussions, or mentoring future professionals, each contribution helps strengthen the NEBB and prepares us for the future.

While technologies, building systems, and industry expectations may continue to change, NEBB's mission remains constant. We will continue to promote technical excellence, support professional development, and maintain the standards that have earned the trust of building owners, engineers, contractors, and facility managers for more than five decades.

As we look ahead, I remain confident that NEBB is well-positioned for the future. Our strength comes not only from the standards we publish or the certifications we award, but from the dedicated individuals who continue to invest their time, expertise, and leadership in the organization.

I sincerely Thank You for your continued support of NEBB and for helping ensure that our organization remains resilient during changing times as we pollinate the communities where we serve!

Rodney Hinton
NEBB President

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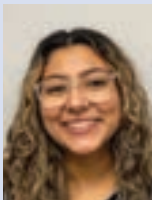
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EVP Update

By Tiffany J. Meyers, NEBB Executive Vice President

The NEBB Mark and Those in the Arena

The true strength of NEBB lies in the certified individuals, firms, volunteers, chapter leaders, Board members, and staff who are actually in the arena each day.

One of the strongest indicators of the health of any certification organization is the continued engagement of its certified firms and individuals. As we move through 2026, I am pleased to report that NEBB continues to demonstrate strong participation across certification, recertification, education, and candidate development programs.

As of the second quarter of 2026, over 633 NEBB-certified firms successfully completed their annual recertification requirements. In addition, more than 2,400 certified professionals and technicians have renewed their certifications, reaffirming their commitment to maintaining the high standards of technical competency and professional excellence that define NEBB certification.

The future of NEBB certification remains equally strong. Currently, more than 700 candidates are actively progressing through the certification process, representing the next generation of NEBB-certified professionals. During the first half of 2026, NEBB ap-

proved 84 new certifications across multiple disciplines, further strengthening the depth and reach of our certified workforce.

As I review these numbers, I am reminded that certification is ultimately about people. Behind every recertification, examination, and firm application is an individual or organization that has chosen to step into the arena and demonstrate their competency, professionalism, and commitment to the standards that define our industry. While statistics help tell the story of our programs, the true strength of NEBB lies in the certified professionals, technicians, firms, volunteers, chapter leaders, Board members, and staff who are actually in the arena each day. Together, they dedicate their time, expertise, and effort to advancing technical excellence, supporting the certification process, and upholding the standards that define our organization.

Interest in firm certification also remains strong. NEBB currently has more than twenty firm certification applications and related transactions in process, includ-

ing new firm applications, ownership transfers, branch office requests, and additional area discipline applications. This continued activity demonstrates the value organizations place on achieving and maintaining NEBB certification as a mark of technical excellence and professional credibility.

The second quarter also marked an important operational milestone for the organization. On May 1, NEBB completed the transition of firm application administration to Headquarters. This initiative was undertaken to improve consistency, strengthen documentation review, enhance audit readiness, and ensure that all applicants are evaluated under the same objective standards. The transition represents a significant step forward in protecting the integrity and long-term sustainability of NEBB certification programs.

Beyond certification activities, NEBB continues to invest in improvements that support our members and stakeholders. Ongoing enhancements to certification systems, application workflows, candidate manage-

ment processes, website resources, and educational programs are designed to improve efficiency while maintaining the rigorous standards that have defined NEBB for more than five decades.

These accomplishments would not be possible without the dedication of NEBB's volunteers, chapter leaders, certified professionals, certified firms, Board of Directors, committees, and staff. The strength of our organization has always been built upon individuals who are committed to advancing technical excellence and protecting the value of NEBB certification.

As we look toward the remainder of 2026, our focus remains clear: maintain the integrity of our certification programs, support the professionals and firms that carry the NEBB mark, and continue providing the leadership and standards that serve our industry.

Thank you for your continued commitment to NEBB and the standards of excellence that define our organization. ●





Beyond “Traditional”: What Data Center Commissioning Really Entails — Levels 0–6 with Technical Commissioning Built In

By Travis Short P. E., NEBB CP,
Vice President of Commissioning Fleet Data Centers

Introduction

Data center commissioning (Cx) is a rigorously phased, performance-validated process that ensures critical mechanical, electrical, controls, and life-safety systems are designed, installed, integrated, and operated to meet the Owner’s Project Requirements (OPR) under both normal and failure conditions. Unlike “traditional” building commissioning—which is often organized around design, construction, acceptance, and warranty phases—data center Cx is structured into seven progressive Levels (0 through 6) that ladder from early design review to turnover and occupancy, with explicit checkpoints, documentation gates, and readiness criteria at each step.

In practice, the Level 0–6 framework does more than re-name project milestones: it operationalizes a quality-assurance and risk-reduction program built for high-availability facilities. Comprehensive Commissioning Guidelines should formalize this approach and assign roles and responsibilities to the Owner, Commissioning Authority (CxA), General Contractor (GC), trades, and vendors, while also specifying documentation control,

issues management, and witness/notice requirements that keep the effort auditable and schedule driven.

Where data center Cx most clearly departs from traditional Cx is in its emphasis on Technical Commissioning—enhanced activities that focus on validating measured performance, optimizing control behavior (e.g., tuning PID loops), and verifying reliability/fault tolerance, not just proving that equipment “runs.” Technical Commissioning permeates all Levels and becomes especially intensive in Level 4 Functional Performance Testing (FPT) and Level 5 Integrated System Testing (IST).

By contrast, a traditional four-phase Cx model group’s work into: (1) Design Phase reviews and planning; (2) Construction Phase checklists and start-ups; (3) Acceptance Phase functional testing; and (4) Warranty/Occupancy Phase training, seasonal tests, and closeout. The Level 0–6 data center model retains those intents but adds granularity (e.g., discrete Level 2A/2B inspections, exhaustive Level 3 startup verification, and system-level vs. facility-level testing in Levels 4 and 5) to reduce single points of failure and to document performance at defined load conditions.

This article explains the Level 0-6 model, highlights Technical Commissioning deliverables at each Level, and contrasts the approach with traditional commissioning, designed to provide guidelines for educational, objective, and execution initiatives.

What Is Technical Commissioning—and Why It Matters in Data Centers?

Technical Commissioning augments the standard Cx process with instrumented measurements, engineering calculations, and optimization tasks that validate actual performance against design intent. A simple illustration: while process Cx confirms a pump starts and follows its Sequence of Operations (SOO), Technical Cx captures pressures, flows, and power to calculate head, efficiency, and controllability, then uses those results to confirm capacity, alarms, and setpoints—or to retune control loops for stability.

Because data centers must sustain IT load through utility disturbances, component failures, and maintenance activities, Technical Cx target's reliability attributes (selective coordination, automatic transfer

behavior, cooling plant step-response, setpoint management, alarming) in addition to energy performance (e.g., kW/ton, UPS efficiency, site PUE trending). The result is fewer “surprises” at IST, faster issue closure, and a clearer pathway to optimization in operations.

Traditional Commissioning vs. Data Center Commissioning

Traditional Model (Design → Construction → Acceptance → Warranty): Focuses on document reviews, pre-functional checklists, functional tests, training, and seasonal verification. It is often adequate for commercial buildings but may not prescribe the depth of failure-mode testing or the instrumentation rigor demanded by mission-critical facilities.

Data Center Model (Levels 0-6): Adds explicit readiness gates, QA/QC artifacts, and multi-party witnessing, with a progression from factory to site, from components to systems, and finally to fully integrated facility testing under scripted normal and failure scenarios—supported by meter plans, load banks, trend requirements, and issues log closure criteria.



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Levels of Commissioning (0-6) with Technical Commissioning Activities

Level 0 — Design, Planning, and Construction Review & Development

Scope and Objectives: Commissioning engagement begins with design-phase reviews of drawings/specifications, sequences, and maintainability; formulation of the Commissioning Plan; definition of roles, reporting, software, and the issues log workflow. This level establishes the roadmap and integrates commissioning into the master schedule.

Technical Commissioning Emphasis: None unique to this level; however, the Technical Cx mindset is embedded by setting performance metrics (e.g., kW/ton, UPS efficiency) and defining trending/measurement plans that will substantiate validation at later levels.

Level 1 — Procurement & Factory Witness Testing (FWT)

Scope and Objectives: Conduct factory testing on major equipment (e.g., engine-generators, UPS, switchgear, chillers) against specified performance and protective functions; confirm nameplate ratings, curves, sequences, interfaces, and safety features before shipment; document deficiencies and corrections.

Technical Commissioning Activities: Although there are no unique Technical Cx requirements, FWT is inherently technical: teams review procedures, acceptance criteria, meter setups/time-sync, and require timely raw waveform data submittals to support acceptance and troubleshooting.

Level 2 — Site Acceptance & Installation (Levels 2A and 2B)

Scope and Objectives: 2A focuses on Site Acceptance Inspections—verifying delivered equipment condition, completeness, documentation, and attribute capture. 2B covers installation quality and pre-energization inspections, including 100% torque checks, megger/continuity, pressure testing, flush/fill, and manufacturer pre-energization verification; all documentation is uploaded and reviewed progressively by GC and CxA.

Technical Commissioning Activities: The CxA actively monitors checklist execution and documentation quality; metering and load bank plans begin coordination to support later performance validation; readiness gates prevent energization without completed 2A/2B artifacts.

Level 3 — Startup (Pre-Functional Commissioning, PFC)

Scope and Objectives: Energization and manufacturer/site start-ups proceed under an approved Energization and Startup Plan (including LOTO, staffing, instrumentation, stepwise criteria). Networked systems (BMS, EPMS, SCADA, Fire) are brought online with point-to-point, graphics, alarms, calibration, and trending; TAB is executed 100% water- and air-side.

Technical Commissioning Activities: CxA witnesses FOK start-ups and post-startup testing, enforces load bank use to validate metering and mechanical performance, and verifies that “as-left” settings and IPs match approved configurations—laying the foundation for later performance tests.

Level 4 — Functional Performance Testing (FPT)

Scope and Objectives: Component- and system-level tests validate functionality, operability, setpoints, alarms, and measured performance at defined load conditions. Scripts are authored by the CxA against OPR, submittals, SOO, and points lists; schedules and witness notices are issued; BMS/EPMS/SCADA base-lines and KPIs (e.g., PUE, kW/ton, UPS efficiency) are trended.

Technical Commissioning Activities: This is the heart of Technical Cx—instrumented measurements, calculations, and analysis to confirm capacities/efficiencies (e.g., chiller plant kW/ton), control stability, and protection/coordination; load banks are commonly applied to individual electrical and mechanical equipment. Issues are categorized and must be closed prior to IST unless Owner approves deferral.

Level 5 — Integrated System Testing (IST)

Scope and Objectives: Orchestrated, scripted tests drive the fully integrated facility through normal and

Sample Pump - TC

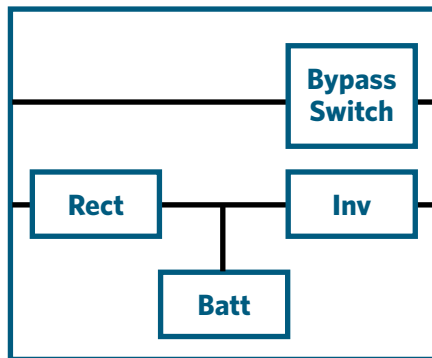


Design Information	
GPM	125
FTH	60.0
Pump Efficiency	66.0%
Motor HP	5.0
Motor BHP	2.8
VFD Volts	480
VFD Amps	6.2

Calculated Design Information	
Discharge Pressure (ft)	84.0
Suction Pressure (ft)	22.0
VFD Hz	60.0
VFD Volts	480
VFD Amps	3.7

Performance Data	
GPM	128
FTH	62.0
VFD BHP	3.0

Sample UPS



Design Information	
UPS Size kVA	1500
UPS Size kW	1,500
UPS Power Factor	1.0
Inverter Efficiency	94.8%
UPS Rectifier kW	1,582
Battery Runtime	5
Battery Amp Hrs	155.0
Required Watt Hrs	131,857
Required Watt/Cell	1,010
Battery Watt/Cell	1,010
# of Battery Strings	4
Batteries/String	30
# of Cell/Battery	2
Battery Cell Voltage	12
Cutoff Volt/Cell	1.67
Low Voltage Cutoff	400.80
Battery SG	1.25

Performance Readings	
Battery Voltage Start	494
Battery Amps Start	3,030
Battery Voltage Stop	401
Battery Amps Stop	3,740
Batt. Discharge Start	2:30:00 PM
Batt. Discharge Stop	2:36:00 PM
UPS Rm. Temp °F	72.0

Performance Calculations	
Operating kW	1499.8
Percent Load	100.0%
Rectifier kW	1582.0
Required Watt/Cell	6,592
UPS Output Volts	480.9
UPS Output Amps	1,800.5
Voltage Unbalance	0.06%
Amperage Unbalance	0.03%
Estimated Runtime	6
Actual Runtime	6

failure scenarios (e.g., utility loss, equipment failure, single-point challenges) at multiple load levels, with no active human intervention, to verify automatic response and overall performance/reliability. Prerequisite: all Level 4 testing passed with issues closed.

Technical Commissioning Activities: Facility-scale performance validation—coincident power/cooling response, transient behavior, and reliability objectives—supported by synchronized metering, long-duration trending, and rapid defect triage/retest cycles as directed by the CxA.

Level 6 — Turnover & Occupancy

Scope and Objectives: Compile Level 1–5 closeout artifacts, finalize issues log, deliver training, O&M manuals, systems manuals, and the Final Commissioning Report; complete lessons-learned and readiness walks; plan any seasonal/deferred tests; and establish definition of “Commissioning Complete.”

Technical Commissioning Activities: Validate KPI trends (e.g., energy and reliability metrics) and embed optimization findings into SOPs/EOPs/MOPs and operator training so that performance gains persist into operations.



Practical Benefits of the Level 0-6 + Technical Cx Approach

- **Risk Reduction:** Early documentation gates (2A/2B) and FOK dry-runs prevent late surprises; IST is executed on systems already proven at component and system levels.
- **Measurable Performance:** Meter plans, load banks, and trending convert “it runs” into verified capacity, efficiency, and stability numbers that inform acceptance and warranty baselines.
- **Faster Issue Closure:** Centralized issues logs, priority criteria, and retest protocols keep the program auditable and decisive.
- **Operational Readiness:** Training and systems manuals are tied to tested sequences and “as-left” settings, improving turnover quality.

Case Study: Technical Commissioning Improves Efficiency and Stability

Project Context: A new 12 MW data center with a water-cooled chilled-water plant (N+1 chillers, variable-primary pumping, cooling towers, plate-and-frame heat exchangers) and CRAH-based white space adopted a Level 0-6 commissioning program with Technical Commissioning embedded.

Level 3 Readiness: TAB completed 100% of air- and water-side systems, controls graphics and alarms

were verified, and a meter and load-bank plan was implemented to support performance validation.

Level 4 Technical Commissioning: During chiller plant FPT, kW, tons, ΔT , and pump head were measured across 30-100% load. Calculations showed excessive condenser-water oscillation driven by aggressive PID tuning on tower VFDs, causing approach instability and degraded plant efficiency.

After PID retuning, deadband optimization, and coordinated resets for CHWS/CWS, repeat tests demonstrated stable control with plant kW/ton improving from 0.82 to 0.75 at 70% load. CRAH valve control and fan-speed response were validated during step-load changes to ensure space stability.

Level 5 IST: Integrated tests simulated peak-ambient conditions and a cooling-tower cell failure. Trends confirmed automatic capacity redistribution without exceeding white-space temperature limits. All critical and high issues were resolved prior to IST completion.

Results: Verified thermal stability during failures, ~9% improvement in steady-state plant efficiency, and fully documented “as-left” sequences and setpoints transitioned into operations.

Conclusion

Data center commissioning cannot be a generic checklist exercise. Mission-critical facilities demand a Level 0-6 framework that scales from factory floors to integrated, failure-mode testing and that treats metering, trending, and performance calculation as first-class deliverables. That is the core distinction from traditional commissioning organized by broad project phases.

Technical Commissioning is the multiplier in this model. By validating measured performance, enforcing configuration discipline, and tuning control behavior, Technical Cx closes the loop between design intent and real-world operation and readies the facility for continuous optimization in service of availability and efficiency.

When executed properly the result is a commissioning program that is transparent, verifiable, and repeatable, with clear acceptance criteria and enduring value for operations.●



MasterSpec 2025 Updates: What Changed and Why it Matters to NEBB Professionals

By Elizabeth Blankenship

“MasterSpec is a product of The American Institute of Architects (AIA) and is continually updated and maintained by Deltek, a leading provider of software solutions for project-based businesses.” What is MasterSpec? Masterspec provides specification packages to AE firms that allow engineers to craft specifications for their projects. Recently, NEBB’s Sound & Vibration committee reached out to Deltek asking to contribute our thoughts regarding their Sound & Vibration portion of the TAB specification 230593. Much to the committee’s delight, they were planning to revamp the TAB spec and were happy to receive NEBB’s thoughts on the entire TAB specification. The recent 2025 version of 230593 was released in March with many changes incorporating NEBB’s expertise in TAB and Sound and Vibration. Masterspec’s 230593 specification is copyrighted and cannot be reproduced without permission, but this article will discuss some changes that are in the new version that you will be seeing on projects as engineers update their specifications.

Quality Assurance

In the older version, the quality assurance section referred to “TAB Specialist” whereas the new version uses “TAB Specialist Firm”. The new version maintains the options for AABC, NEBB and TABB certifications as the industry standard certifications for TAB. All these organizations have firm level certification. This wording change should help AE firms to ensure that their TAB providers have firm level certification. Also, the version has added explanation that AABC requires independence, and offers an option for similar requirements for NEBB and TABB firms if desired.

In the previous version, the TAB qualifications did not require Sound and Vibration specialists. Now, the specification gives the engineer a list of sound and vibration qualifications that he can choose from including “NEBB-certified Sound and Vibration Technician”. This will educate the engineers that this area of testing has additional learning beyond basic test and balance.

ASHRAE 111 compliance has been specifically required by this new version. This is a standard developed by ASHRAE titled "Measurement, Testing, Adjusting, and Balancing of Building HVAC Systems". Going forward, this will be important to ensure that NEBB procedural standard meets or exceeds ASHRAE 111, so that NEBB firm's will be performing balancing in compliance with ASHRAE 111. The previous version and the new version both require the instrumentation to meet the ASHRAE 111 requirements.

Examinations

The old version required TAB professionals to evaluate equipment selection, design assumptions, and project conditions that may affect system performance. As this is the design engineers responsibility, these examinations have been removed from the new version. There were multiple places in the older version that required TAB professionals to provide review and professional opinions regarding system conditions. These have been removed. Additionally, our TAB industry suggestions to ensure permanent filters are installed and permanent strainers have been installed by the installing contractors have been incorporated into the new version. These should drive proper responsibilities as projects are executed.

Preparation

The main revision is that wording has been changed from "perform system-readiness checks" to "prepare system-readiness checklists". This change should help facilitate smoother TAB projects as contractors fill out the checklists. TAB project managers can review these checklists and ensure that the projects are truly ready for TAB. In addition, the Underfloor Air Distribution (UFAD) specific requirements have been added to the checklist.

General Procedures

With the new revision, SMACNA's test and balance procedures have been added to the list of options for procedural standards. NEBB's procedural standard continues to be an option. This section has further identified installing contractors as responsible for the patching or installation of pressure and temperature plugs.

General Procedures for Air Systems

The requirements for single-line schematic diagrams have been expanded to allow color coded marked up plans to identify equipment. Further, TAB scope is better defined as requirements to find blockages, check condensate drain installation and check proper sealing of air-handling units has been removed from this spec section. Practical changes in wording occurred for example duct measurements are "suitable" locations rather than "best" locations.

The economizer mode measurement requirement has been refined with an added requirement to maintain a constant mixed air pressure as dampers are opened and closed within plus or minus twenty percent. Dual-duct systems section now mention high pressure safety settings to be set below static rating of the duct work. Following calibration of the VAVs, all VAVs at once will need to be set to max airflow and their BAS airflow and damper position documented. Further, the AHU airflow will need to be adjusted "until one air terminal unit damper position is 85 percent open".

General Procedures for Hydronic Systems

For the water TAB side, a single-line schematic diagram is now required. Also, there is an added requirement to ensure that pump motors are operating below full load amps "through full range of operation". If there is no flow meter, the new version requires that the coil pressure drop be utilized to determine the flow. This will require the balancer to know the design pressure drop and design GPM in order to calculate the flow. The new version also requires the calculation of actual capacity of each coil and heat exchanger. Motor procedures and data have been updated to remove starter size and thermal protection element rating data collection as this is better provided by startup. For VFD motors, the new version indicates documentation of motor HZ at maximum and minimum conditions.

Water Chillers data collection now allows data collection from the chiller control panel readout. Calculating chiller efficiency has also been removed from the new

SPECIFICATIONS

version. The old version of cooling towers required performance testing in compliance with “CTI ATC-105” or “AABC Performance Test”. The new version added SMACNA’s testing procedure as an option. The data collected for Cooling Towers have been expanded as the previous version did not require unit data. Also, Range and Approach have been defined in the new version. Range is “inlet water temperature minus outlet temperature”. Approach is the “ambient wet bulb minus leaving water temperature”.

Procedures for Air-Cooled Condensing Units and Condensers

In understanding of the TAB scope, the new version does not require measurement of refrigerant pressures.

Procedures for Boilers

The new version has dropped capacity, efficiency, and fuel consumption. The steam measurements have been updated to be recorded from installed gauges. This is a safer approach for TAB technicians. The previous version required calculation of waste heat recovered by boilers with flue gas economizers. This calculation has been removed from the new version.

Procedures for Heat-Transfer Coils

As similar sections, steam temperature and pressures are recorded from installed gauges. Refrigerant data collection has also been deleted from refrigerant coils.

Procedures for Exhaust Hoods

Laboratory Fume Hood section has significantly been updated to align with ASHRAE 110 procedures. The new version includes a reference to 115313 Laboratory Fume Hood spec section. If the engineer chooses not to include the requirements in this other spec section, then a newly written explanation and description that follows ASHRAE 110 is included. The environmental conditions related to visualization and tracer gas use are discussed, as well as the fact that test and balance scope often exclude fume hood testing.

Sound Tests

This section has been updated to conform with NEBB standards. The previous standard had dated language and required a class one meter. The new standard requires annual NIST traceable calibration and includes class two meters which are appropriate for our industry’s sound measurement requirements. The new language is more thorough and provides more direction in order to provide repeatable and accurate project sound measurements. The engineer is now directed to determine where sound tests should be performed. Outdoor measurement procedures were also added as an option for the engineer to include or exclude per project needs.

Vibration Tests

This section has been updated to conform with NEBB standards. The previous section was brief and open to interpretation. NEBB S&V Committee submitted

language which was accepted that included Pre-Test Procedures, Test Procedures, FFT Analyzer Settings, and Reporting. NEBB's procedural standard has been included in the list of standards in two places. The equipment included in vibration testing has been suggested as 3 horsepower or greater for pumps and fans and 5 horsepower or greater for chillers and compressors. Engineers can use their own requirements, but it is beneficial to have this verbiage that matches NEBB as the common language. The vibration measurement locations have also been listed to match NEBB which should lead to more consistent vibration reporting.

Duct-Leakage Tests

This scope has been clarified to allow performance by TAB with clear language that it be performed by a technician certified by AABC, NEBB, TABB, or another equivalent agency.

Pipe-Leakage Tests & UFAD Plenum Leakage Tests

Similar to Duct-Leakage tests, there is now a comment indicating that these are not a common TAB service which should be helpful.

HVAC Controls Verification

The main change is that the verbiage changed from "Verify HVAC control system is operating within the design limitations" to "Work to ensure the system is operating within the design limitations and gain a mutual understanding of intended controls performance."

Stair-Pressurization Systems

Masterspec did not change the verbiage, but they did add a comment that open door tests may no longer be required depending on jurisdictions. NEBB members may see a change on some projects.

Smoke-Control System Testing

There is a recognition that NFPA now requires a smoke control matrix which should be reviewed prior to performing the testing. Similar to stair-pressurization systems, there is some testing with comment that the testing may no longer be required.

Testing, Adjusting and Balancing Existing Systems

As in the new construction, the refrigerant charge, drain pans/traps, bearings and lubrication state have been removed from TAB scope. Further, the motor speed changes have been removed from the scope as this is commonly performed by mechanical contractors.

Tolerances

Tolerance options remained unchanged other than clarification of the prioritization of pressure relationships over airflow tolerances.

Final TAB Report

Following previously discussed TAB scope clarification, the following data requirements have been removed from the new spec: refrigerant data, burner and ignition data. Steam data clarifies use of the installed gauges.

Reverification

This section has been added to clarify that if verification fails, the reverification includes new measurements, new report and another verification. If a second verification fails, there is verbiage to contact the performance guaranty program.

Summary

NEBB's cooperation in this latest version of 230593 will continue NEBB's standing as the premier international certification association for the TAB industry. Masterspec's thorough process to implement changes in their documents demonstrated why industry professionals rely on them for their project specifications. This collaborative effort will drive positive changes in our industry and work for many years. ●

READ, QUIZ, EARN!

After reading the full issue, please go to the NEBB Learning Center at <https://nlc.nebb.org> to take a 5-question quiz to earn 0.25 NEBB CEC/1 AIA LU!





A Destination Defined by Resilience and Hospitality

By Tiffany J. Meyers,
Executive Vice President

Resilience, collaboration, and innovation have shaped both Asheville's story and NEBB's success

Nestled among the Blue Ridge Mountains, Asheville, North Carolina, is a destination known for its breathtaking scenery, vibrant culture, rich history, and enduring spirit of resilience. Each October, the mountains surrounding Asheville transform into a tapestry of brilliant reds, oranges, and golds, creating one of the most spectacular fall landscapes in the country. It is no surprise that Asheville has become one of the Southeast's most sought-after destinations for travelers seeking natural beauty, hospitality, and unforgettable experiences.

This October, NEBB affiliates, industry partners, exhibitors, sponsors, and guests will have the opportunity to experience all that Asheville has to offer as we gather for the 2026 NEBB Annual Conference, October 22-24.

Asheville's story is one of resilience. The community has continually adapted and thrived through changing economic conditions, evolving industries, and re-



gional challenges while preserving the character and values that make it unique. That spirit closely reflects President Rodney Hinton's 2026 theme, *Remaining Resilient During Changing Times*. Much like the individuals who make up the NEBB community, Asheville demonstrates that success is often achieved through adaptability, perseverance, and a commitment to excellence even during periods of change.

Beyond its natural beauty and rich history, Asheville is also recognized as the birthplace of the Bee City USA movement, a national initiative dedicated to supporting pollinator conservation and environmental stewardship. The symbolism is fitting. Just as a thriving hive depends on the collective efforts of every bee, NEBB's success depends upon the contributions of certified firms, volunteers, chapters, committees, instructors, Board members, and staff working together toward a common goal. The strength of the organization is found in the collective efforts of its members.

One of Asheville's greatest attractions is its vibrant and highly walkable downtown district. Filled with lo-

cally owned shops, galleries, bookstores, coffeehouses, breweries, and restaurants, the city offers visitors an authentic experience that reflects the creativity and entrepreneurial spirit of the region. Whether enjoying farm-to-table cuisine, Southern specialties, or internationally inspired dishes, attendees will find no shortage of exceptional dining options within a short walk of Asheville's historic streets. The city's commitment to supporting local businesses has helped create a welcoming atmosphere that encourages visitors to slow down, explore, and experience the unique character of the community.

One of the highlights of this year's conference will be the opportunity to experience the legendary Biltmore Estate. NEBB's Get Acquainted Reception and Guest Event will be held at this iconic landmark, providing attendees and guests with a unique opportunity to experience one of America's most celebrated historic properties while connecting with colleagues and friends. Built by George Vanderbilt and completed in 1895, the Biltmore remains America's largest privately owned home and is widely regarded as one of the country's





premier historic estates. Set against the backdrop of the Blue Ridge Mountains, the estate's stunning architecture, gardens, and grounds provide an unforgettable setting that captures the beauty and character of Asheville.

Golf enthusiasts will also have the opportunity to experience one of the region's most celebrated courses during the NEBB Golf Outing at the historic Omni Grove Park Inn. Known for its rich history, mountain views, and championship-caliber golf experience, the course offers a memorable day on the links while showcasing some of the area's most impressive scenery.

Beyond the conference events, Asheville invites attendees to extend their stay and explore everything Western North Carolina has to offer. From scenic mountain drives and hiking trails to historic sites, wineries, craft breweries, and world-class dining, there is no shortage of opportunities to experience the region's unique character and charm.

Like Asheville itself, NEBB continues to move forward by remaining resilient during changing times while staying committed to the standards, professionalism, and excellence that define our organization. As we gather this October in the mountains of Western North Carolina, we will do so in a community that embodies many of the same qualities that have sustained NEBB for more than five decades: resilience, collaboration, innovation, and a commitment to excellence. Whether you join us for the educational programs, networking opportunities, the Get Acquainted Reception and Guest Event at the Biltmore Estate, the Golf Outing at the Omni Grove Park Inn, or simply to enjoy one of America's most beautiful mountain destinations, Asheville promises an unforgettable experience. We encourage you to make plans now to join us October 22-24, 2026, as NEBB comes together in Asheville for another outstanding Annual Conference. ●



REMAINING RESILIENT DURING CHANGING TIMES

EXHIBITOR PROSPECTUS AND SPONSORSHIP OPPORTUNITIES



NEBB 2026: Remaining Resilient During Changing Times

At NEBB, we are committed to fostering a culture of collaboration and driving innovation to elevate industry standards. Building on the success of our educational initiatives, we continue to expand the NEBB Education and Hands-On Learning Center. In 2023, we proudly launched the Robert B. Gawne NEBB Training and Education Center in Gaithersburg, MD—a dynamic hub designed to inspire and empower the next generation of certified professionals and technicians.

Through these initiatives, NEBB encourages lifelong partnerships, challenging individuals to reach their fullest potential while growing alongside us in their professional journeys.

The 2026 NEBB Annual Conference

With over 300 attendees, this annual networking and educational event is geared for NEBB industry professionals, giving them the chance to network with familiar friends, make new industry contacts and expand their professional horizons. Our conference gives attendees the opportunity to explore latest trends and obtain technical updates facing the global industries serviced by NEBB and learn from you, our Exhibitors, about products and services that will advance their professional development and businesses.

The 2026 NEBB Annual Conference will be held in Asheville, North Carolina, where business meets the beauty and strength of the Blue Ridge Mountains—offering a setting that reflects resilience, renewal, and forward momentum.

The Right Exposure

Participation as an Exhibitor and/or Sponsor of the 2026 NEBB Annual Conference demonstrates your company's commitment to the most important professional event for NEBB firms and professionals. Why? Because our event gives your company the chance to interact with industry representatives from all facets of the industry – from entry-level – executive professionals in your field.

- Conference meals and breaks take place in our Exhibit Hall giving you maximum track flow as attendees go to and from various Technical Track sessions while enjoying food and beverage offerings.
- A two-hour Vendor Reception in the Exhibit Hall maximizes your time with attendees.
- You can attend our Technical Track sessions and learn alongside your industry peers.



2026 NEBB Conference Exhibit Schedule

Thursday, October 22, 2026

10:00 am – 2:00 pm Exhibitor Setup

2:00 pm – 4:00 pm Exhibitor Hours

Friday, October 23, 2026

7:00 am – 5:00 pm Exhibit Hall Open

7:00 am – 8:00 am Breakfast

11:30 am – 1:00 pm Lunch and Networking

Saturday, October 24, 2026

7:00 am – 5:00 pm Exhibit Hall Open

7:00 am – 8:00 am Breakfast

11:30 am – 1:00 pm Lunch and Networking

3:00 pm – 5:00 pm Vendor Reception and Prize Giveaway

5:00 pm – 6:00 pm Exhibitor Strike

**Exact times subject to change*

Exhibitors Receive

- 6 Foot Exhibit Table Top with 2 chairs and wastebasket
- Two (2) Exhibitor Conference Registrations with access to Technical Track sessions and group events
- When 2 Exhibitor Table Tops are purchased, only 2 complimentary registrations are provided (not 4)
- Conference attendee list for marketing purposes (Name, Title and Company)
- Listing in NEBB's on-site conference program
- Listing on NEBB's online annual conference website
- Participation in the vendor prize giveaway at Vendor Reception



Exhibitor Table Costs

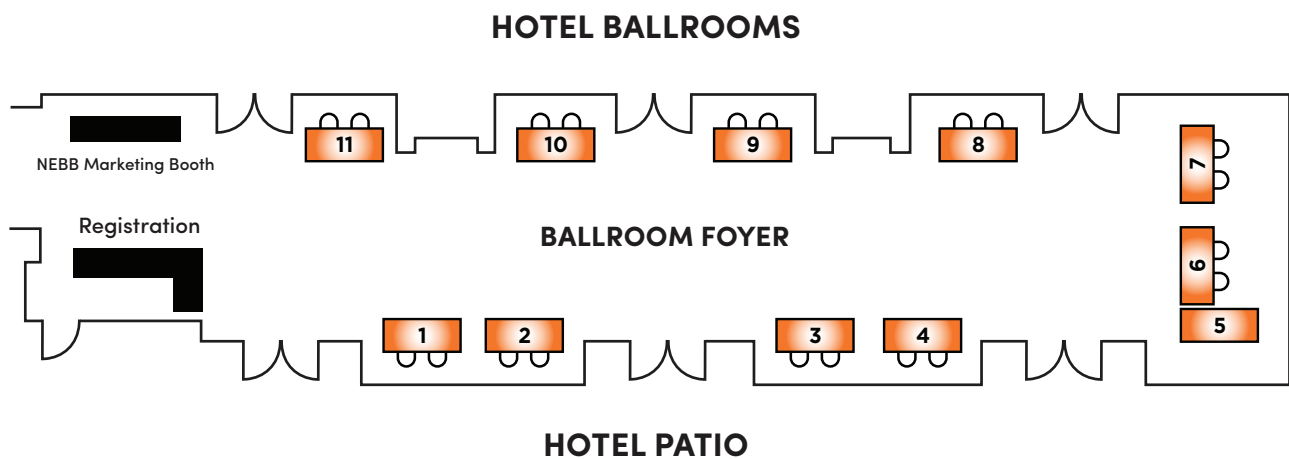
One Exhibitor Table: \$3,200

Dual Exhibitor Table Tops: \$4,000 (2 Tables Total)

- Full payment is required when securing table top(s) or reservation will be forfeited
- Exhibit Space is on a “first come, first paid” basis
- Contact events@nebb.org

Exhibitor Hall Floorplan

The Marriot Renaissance Hotel Ballroom Foyer





Become a Sponsor!

NEBB Annual Conference Sponsors are valuable partners who help keep registration fees affordable while helping NEBB to enhance its excellent program and ancillary activities.

NEBB's 2026 Sponsorship Program is organized into two categories:

- 1. Top Tier Sponsorships**
- 2. General Sponsorships**

Each sponsorship has unique opportunities within each level. Choose the package that's best suited for your company and budget.

Top Tier Sponsorship Levels



GOLD LEVEL: \$9,000

- One complimentary Exhibit table top space and standard exhibit package extras
- 50% off an additional Exhibit table top space and standard exhibit package extras
- 50% off additional exhibitor registrations
- Full-page ad in the conference program guide
- Acknowledgment in conference program guide as a Gold Sponsor
- On-screen acknowledgment during General Session
- Acknowledgment on conference sponsor signage as a Gold Sponsor
- Sponsor logo on conference website



SILVER LEVEL: \$7,000

- One complimentary Exhibit table top space and standard exhibit package extras
- 50% off an additional Exhibit table top space and standard exhibit package extras
- ¼ page ad in the conference program guide
- Acknowledgment in conference program guide as a Silver Sponsor
- Acknowledgment on conference sponsor signage as a Silver Sponsor
- Sponsor logo listed on conference website



BRONZE LEVEL: \$3,500

- 50% off one Exhibit table top space and standard exhibit package extras
- Acknowledgment in conference program guide as a Bronze Sponsor
- Acknowledgment on Conference Sponsor signage as a Bronze Sponsor
- Sponsor logo listed on conference website



2026 Annual Conference Sponsorship Opportunities

SPONSORSHIP	PRICE	SPONSORSHIP DESCRIPTION
Company Promo Products Giveaway	\$3,000	EVERYONE LOVES GIVEAWAYS! Your company will be able to place a unique promotional item in each conference attendee's bag. Promotional item to be provided by Sponsor and imprinted with company logo.
Opening Session	\$3,000 2 Available	BE NOTICED! Sponsor logo recognition during NEBB's Opening Session as this premier Sponsor. This event is attended by all conference attendees. Your company logo will be featured prominently at this event.
Get Acquainted Reception	\$3,000 2 Available	Company logo front and center, leading off NEBB's Annual Conference by welcoming attendees to the opening reception. Sponsor(s) will be able to supply gifts/giveaway items to attendees in the kick-off social event for the NEBB annual conference.
Vendor Reception	\$2,500 2 Available	This reception will be held on Saturday afternoon in the Exhibit Hall. You can offer attendees a choice of beverages. Your company logo will be featured prominently at this event.
Conference Program	\$1,500 4 Available	Your company 1/4 page advertisement or logo will appear on the inside back cover of the on-site printed program guide, distributed to all conference attendees and posted on the NEBB Annual conference website.
Friday Networking Luncheon	\$1,500 2 Available	Attended by all conference attendees, your sponsorship will be acknowledged during lunch and your company name will be featured on the on-site event signage.
Saturday Networking Luncheon	\$1,500 2 Available	Attended by all conference attendees, your sponsorship will be acknowledged during lunch and your company name will be featured on the on-site event signage.



You can also be one of our
Golf Tournament sponsors!

Golf Tournament Official Sponsor

\$5,000.00

Non-refundable

Golf Tournament Breakfast Sponsor /
2 Available

\$750.00

Non-refundable

Golf Hole Sponsor -
Support ASHRAE Research

\$300.00

Non-refundable



Instrument Requirement Changes for the 2027 Recertification Cycle

By Jeff Schools

Each year, before the recertification begins on August 1st, we query the NEBB Technical Committees to identify any changes to the current discipline Required Instrumentation list that is posted on the NEBB website. This year there is only a verbiage change by the Fume Hood Committee. The change can be found below.

Fume Hood Testing (FHT)

The Fume Hood Committee would like to update the verbiage and make it clearer. They would like to replace the section currently labeled, "Orifice Calibrator", and update Note #2 on the instrument requirement list to read, *the rotameter (bubble gauge) requires a NIST-traceable calibration performed either with the approved tracer gas or calibrated with AIR and then used with the manufacturer's correction factor. This calibration does not expire and is not required to be renewed annually.*

Old 2026 Instrument Requirement List FHT Verbiage:

FHT Instruments		Nominal velocity																	
Ejector w/critical orifice		Must conform to the requirements as indicated in the current edition of NEBB FHT #5. See appendix D for instrument specifications.										Not Applicable		Not Applicable		Not Required			
Orifice Calibrator	Flow Meter	0	1/in	10	20	1/in	0	0%					0.1	1/in			#2	Calibrate to appropriate tracer gas	
	Mechanical Device	0	1/in	10	20	1/in	0	0.1	1/in					0.1	1/in				12 Months
Tracer Gas		Sulfur hexafluoride Commercial grade (Minimum purity of 99%) or approved replacement gas.										Not Applicable		Not Applicable				SDS Required	
Mannequin		A three dimensional mannequin (torso) with arms and shall be of reasonable human proportions and be clothed with a lab coat. The height must be adjustable to meet the height requirements of the various hood configurations, i.e. standard bench hood, ADA height, floor mounted, etc. Probe shall be placed in the normal breathing zone based on the various heights.										Not Applicable						Not Required	
NOTES																			
*1 CPT Option - choose only Option 1 OR Option 2 - along with required instrument for CPT certification (all instruments to any of the chosen is required)																			
*2 FHT Orifice Calibrator - Choose only one.																			

New 2027 Instrument Requirement List FHT Verbiage:

FHT Instruments		Nominal velocity										Notes																													
Orifice w/critical orifice		Must conform to the requirements as indicated in the current edition of NEBB FHT #5. See appendix D for instrument specifications.										Not Applicable																													
Orifice System-Calibrator		Rotameter (Bubble Gauge)										0	1/in	10	20	1/in	0	0%					0.1	1/in							#2	Initial / One Time									
		Digital Mass Flow Meter										0	1/in	10	20	1/in	0	0.1	1/in					0.1	1/in						12 Months										
Tracer Gas		Sulfur hexafluoride Commercial grade (Minimum purity of 99%) or approved replacement gas										Not Applicable										Not Applicable										MSDS Required									
Mannequin		A three dimensional mannequin (torso) with arms and shall be of reasonable human proportions and be clothed with a lab coat. The height must be adjustable to meet the height requirements of the various hood configurations, i.e. standard bench hood, ADA height, floor mounted, etc. Probe shall be placed in the normal breathing zone based on the various heights.										Not Applicable										Not Required																			
NOTES																																									
*1 CPT Option - choose only Option 1 OR Option 2 - along with required instrument for CPT certification (all instruments to any of the chosen is required)																																									
*2 The Rotameter (Bubble Gauge) requires a NIST-traceable calibration performed either with the approved tracer gas, or calibrated with AIR and then used with the manufacturer's correction factor. This calibration does not expire and is not required to be renewed annually.																																									

Introducing

Dear Airbby

Guidance from NEBB on Certification, Standards, Procedures and Technical Questions



Dear Airbby offers NEBB professionals, technicians, and industry representatives an opportunity to submit questions and receive guidance from NEBB HQ and subject matter experts. The goal is to provide clear, practical answers from NEBB on certification, standards, procedures and technical questions that others in the NEBB community may find useful.

If you've ever had a question about NEBB certification, standards, procedures, or how a particular policy applies in practice, you're not alone.

NEBB professionals, technicians, and industry representatives regularly encounter situations where a little clarification can be helpful, whether related to certification requirements, governance procedures, technical seminars, instrumentation, NEBB chapters, or technical practices in the field.

Dear Airbby is a regular column where readers can submit those questions and receive guidance from NEBB HQ and subject matter experts. The goal is to provide clear, practical answers that may also help others across the NEBB community who may be facing similar questions.

Dear Airbby,

Do I have to be affiliated with a union to apply for NEBB certification, either as an individual or as a firm?

— **Curious About Certification in Washington**

Dear Curious,

No. NEBB certification is not affiliated with or limited to any labor organization. Individuals and firms may pursue NEBB certification regardless of union affiliation.

NEBB is an independent, nonprofit organization whose certification programs are based on demonstrated technical competency, documented experience, and successful completion of required examinations. The certification process is designed to verify that professionals and firms performing work within NEBB disciplines meet the established standards for training, knowledge, and performance.

In short, NEBB certification is open to qualified individuals and firms across the industry, and union affiliation is not a requirement.

— **Airbby**



Dear Airbby,

If I am planning on selling my NEBB-certified firm, does the NEBB firm certification automatically transfer to the new owner, or do I need to submit something to NEBB to recognize the transfer?

— **Considering Selling in Indiana**

Dear Considering Selling,

NEBB firm certification does not automatically transfer when ownership of a firm changes.

Because NEBB certification is granted to a firm based on specific requirements—including NEBB-certified individuals, documented procedures, instrumentation, and organizational structure—any change in ownership must be reported to NEBB so the organization can review the change and confirm that the firm continues to meet NEBB certification requirements.

If a NEBB-certified firm is sold or undergoes a change in ownership or controlling interest, the firm must notify NEBB HQ and submit the appropriate documentation so the certification status can be evaluated under the new ownership. This process helps ensure that the firm continues to maintain the standards associated with NEBB firm certification.

If you anticipate a change in ownership, we encourage you to contact NEBB HQ in advance so the appropriate steps can be discussed, and the transition can be handled smoothly.

— **Airbby**



Dear Airbby,

I understand that NEBB work is not restricted to local chapter boundaries. Based on that, can I choose which chapter I belong to?

— **Wondering About Chapters**

Dear Wondering,

NEBB firm affiliations are tied to the geographic chapter in which the firm's primary office is located, rather than where individual projects may occur.

While many NEBB-certified firms perform work across multiple states or regions, chapter affiliation is intended to provide a consistent administrative and professional connection within the NEBB structure. Chapters support the organization through activities such as the Recertification Seminar, TAB CT Seminar, and industry outreach, as well as member engagement within their geographic area.

Because of this structure, affiliation is determined by the location of the firm's primary office and the chapter that corresponds to that geographic region.

If a firm relocates its primary office, or if there are unique circumstances related to chapter boundaries, NEBB HQ can review the situation and provide guidance on the appropriate chapter affiliation.

— **Airbby**

Dear Airbby,

Recently I've noticed that some of the projects I planned to bid on either exclude or do not name NEBB in the balancing specification. What recourse do I have to address this?

— Very Frustrated in Kalamazoo

Dear Very Frustrated,

If you encounter this situation again, the best step is to gather as much information as possible from the contract documents, including the engineering firm responsible for writing the specification. You can then forward that information to NEBB HQ.

NEBB HQ will reach out to the appropriate parties and provide information explaining why NEBB is the leading certification organization for testing, adjusting, and balancing, and how NEBB-certified firms help deliver high-performance building systems. This outreach often helps engineers and project teams better understand the value of including NEBB certification within their specifications.

— Airbby



Dear Airbby,

When selected for instrument verification, is there a specific look-out date requirement that my submission must meet?

— Just Wondering in Cleveland

Dear Just Wondering,

With the Instrument Verification process, there is no longer a look-out date that calibration certificates must meet. Instead, the requirement is that your calibration certificates are current at the time of submission.

This change reflects an update that took effect on July 1, 2022. Section 5.6.2, *Instrument Calibration, of the Procedural Standard for Testing, Adjusting and Balancing of Environmental Systems - 2019, Ninth Edition* was revised to state:

"The Final Report must contain a summary list of all instrumentation and equipment used on the project

or that will be used to verify reported data, accompanied by copies of the current calibration certificates."

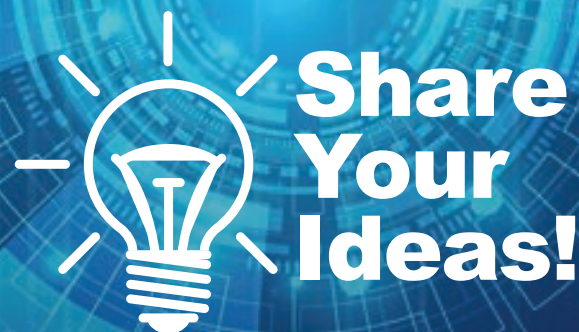
Ensuring that your calibration certificates are current when you submit your documentation will meet the requirements.

— Airbby ●



Have a question for Airbby?

Questions may be submitted to NEBB HQ for consideration in a future issue of NEBB Professional. Submissions may address certification, standards, procedures, administrative matters, or technical topics relevant to the NEBB community. Please submit your questions through the [Dear Airbby Column Submission Form](#).



The NEBB Professional is a hub of peer tips and expertise, case studies and experiences, upcoming industry trends, and more. Share your story ideas today, so we can help you turn it into an article tomorrow.

Contact editor@nebb.org





What Makes a Complete Application

By Keiry Salgado

A complete application requires the submission of specific documentation to verify education, experience, and, where applicable, training. Requirements may vary depending on the discipline and category for which you are applying; however, the following elements generally apply:

Required Documentation

1. Proof of Education

All applicants must provide evidence of educational qualifications. Acceptable documentation includes one of the following:

- o High school diploma or equivalent (a high school attestation form is also available)
- o Associate degree from an accredited community college, trade school, or equivalent military training
- o Bachelor of Science degree in Engineering from an accredited institution or equivalent military training

2. Professional Resume

A current resume is required for all applications. Submissions must be in PDF or Word format.

3. Verification of Job Experience

Most categories require documentation of relevant field or management experience. This is typically provided through a Project Responsibilities Overview, which may be completed within the application (page 4) or submitted as a separate PDF or Word document.

Each listed project must:

- o Demonstrate the minimum experience required for the selected category
- o Include dates of involvement
- o Provide a summary of duties and responsibilities

4. Alternative Training (if applicable)

Certain categories require completion of an approved alternative training course related to the discipline sought. Examples include:

- o Discipline-specific NEBB home study courses
- o NEBB hands-on training courses
- o Discipline-specific NEBB training seminars
- o Trade school programs, including technical college coursework or apprenticeships
- o Other industry-related training seminars (subject to approval)

Additional Requirements

To ensure completeness, applicants must also provide:

- A full home address
- A personal email address
- Signed and dated copies of the following documents:
 - o Applicant Code of Conduct Attestation
 - o Individual Arbitration Agreement
 - o Code of Business Ethics

Ensuring all required materials are submitted accurately and in full will help avoid delays in the application review process. ●



NLC

NEBB's Learning Center: Your Central Resource for Knowledge and CECs

BET Courses on the NLC:

- **BET Test Your Knowledge (Free)**
- **A Walk-Through BET Procedural Standards (\$100, 1 CEC)**
- **BET A-Z (\$100, 1 CEC)**
- **Design Phase Concepts of Building Enclosure Testing (\$50, 0.5 CEC)**

CPT Courses on the NLC:

- **2024 Annual Conference - Facility Qualification: Cleanroom Certification and IQ-OQ-PQ (\$100, 1 CEC/1 AIA LU)**
- **2025 Annual Conference - Reimagining Cleanroom Certification: Robotics, AI and the Path to Full Traceability (\$100, 1 CEC/1 AIA LU)**
- **CPT Particle Size Distribution (\$50, 0.5 CEC)**
- **CPT Test Your Knowledge (Free)**
- **HEPA Filter Repairs (\$50, 0.5 CEC)**
- **Life Cycle Enclosures: A Review of Types, Operation, Requirements (\$100, 1 CEC/1 AIA LU)**
- **Photometer HEPA Filter Leak Testing (\$100, 1 CEC/1 AIA LU)**
- **Relative Standard Deviation (\$50, 0.5 CEC)**
- **Room Pressurization (\$150, 1.5 CEC)**

Cx Courses on the NLC:

- **2024 Annual Conference - Fault Detection & Diagnostics (\$100, 1 CEC/1 AIA LU)**
- **2025 Annual Conference - Power Systems Analysis: Arc Flash and Coordination for the Commissioning Provider (\$100, 1 CEC/1 AIA LU)**
- **CxCT Functional Performance Testing & Reviewing and Analyzing Trends (\$100, 1 CEC/1 AIA LU)**
- **CxCT HVAC Fundamentals (\$100, 1 CEC/1 AIA LU)**
- **CxCT Introduction & Overview (\$50, 0.5 CEC/1 AIA LU)**
- **CxCT NEBB Roles & Responsibilities (\$50, 0.5 CEC/1 AIA LU)**
- **CxCT NEBB Technical Commissioning (\$50, 0.5 CEC/1 AIA LU)**
- **CxCT Overview of Controls (\$250, 2.5 CEC/1 AIA LU)**

- **CxCT Process vs. Technical Commissioning: Energy Audit vs RCx; Using Cx Instruments; Professional Conduct; Field Safety** (\$100, 1 CEC/1 AIA LU)
- **CxCT System Assessments; Pre-Functional Testing; Quick Fixes; System Setup** (\$100, 1 CEC/1 AIA LU)
- **CxCT Testing, Adjusting, Balancing** (\$50, 0.5 CEC/1 AIA LU)
- **CxCT Troubleshooting; Air, Water, Electrical, Plumbing, Fire Protection, Building Envelope, Electrical Systems Technology** (\$200, 2 CEC/2 AIA LU)
- **Steam System Basics** (\$100, 1 CEC)

FHT Courses on the NLC:

- 2025 Annual Conference - **ASHRAE 110 Standard Advancement** (\$100, 1 CEC/1 AIA LU)
- **Conditions That Could Affect Fume Hood Performance** (\$50, 0.5 CEC)
- **FHT Airflow Velocity Testing Requirements Par 1 & 2** (\$50, 0.5 CEC)
- **FHT Fume Hood Types Part 1 & 2** (\$150, 1.5 CEC)
- **FHT Laboratory & Cleanroom Protocol and Safety** (Free)
- **FHT NEBB Certified Report** (\$50, 0.5 CEC)
- **FHT Review of Testing Requirements** (\$50, 0.5 CEC)
- **FHT Seminar Introduction & Overview** (\$50, 0.5 CEC)
- **FHT Test Your Knowledge** (Free)
- **FHT Tracer Gas Containment Testing Requirements** (\$100, 1 CEC)
- **NEBB Fume Hood Procedural Standard for Fume Hood Performance Testing: VAV Response Time** (Free, 0.5 CEC)
- **Velocity Variations** (\$50, 0.5 CEC)

S&V Courses on the NLC:

- **Sound & Vibration in the Building Commissioning Process** (\$100, 1 CEC)
- **Review of Logarithms: Use of Logs in Sound and Vibration** (\$50, 1 CEC)
- **S&V Test Your Knowledge** (Free)

TAB Courses on the NLC:

- 2025 Annual Conference - **Woes of the Flows: Low Flor Air Delivery and Constant Airflow Regulations** (\$100, 1 CEC/1 AIA LU)
- 2024 Annual Conference - **Methods of Visualization Testing for Hotel Smoke Removal Systems** (\$100, 1 CEC/1 AIA LU)
- 2024 Annual Conference - **Outdoor Airflow Measurement on Close-coupled Rooftop Units**
- **Capture Hood Errors Associated with Commercial Diffusers** (\$100, 1 CEC/1 AIA LU)
- **Flow Hydraulics and Their Effect on Ultrasonic Flow Meters** (\$100, 1 CEC/1 AIA LU)
- **TAB Equations and Calculations for Study** (\$100, 1 CEC)
- **TAB Fan Curves** (Free)
- **TAB Fan Laws, Pump Laws and Fan Tip Speed** (\$100, 1 CEC)
- **TAB Pump Curves** (Free)

- **TAB Test Your Knowledge** (Free)
- **TABopts Reporting with NEBB Compliant Forms** (\$100, 1 CEC/1 AIA LU)
- **Testing, Adjusting and Balancing (TAB) Technician Seminar** (\$600, 12 CEC)
- **Testing, Adjusting and Balancing (TAB) Technician Seminar (2024)** (\$600, 12 CEC)

General NEBB Courses on the NLC:

- 2024 Annual Conference - **Building Your Brand: Essentials for NEBB Professionals and Firms** (\$100, 1 CEC/1 AIA LU)
- **NEBB Standards for Reports and Forms** (Free)
- **NEBB TAB Certified Professional Error Finding Review** (\$325)
- **NEBB TAB Certified Professional Pre-Field Report Preparation Exercise Testing Module** (\$325)
- **NEBB TAB Pre-Field Report Preparation Exercise Module** (\$325)
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- **NEBB Professional Online Learning Quiz (2025 - Quarter 1)** (Free, 0.25 CEC/1 AIA LU)
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- **NEBB Professional Online Learning Quiz (2025 - Quarter 3)** (Free, 0.25 CEC/1 AIA LU)
- **NEBB Professional Online Learning Quiz (2025 - Quarter 4)** (Free, 0.25 CEC/1 AIA LU)
- **NEBB Professional Online Learning Quiz (2026 - Quarter 1)** (Free, 0.25 CEC/1 AIA LU)

To create or access your NLC account, please visit: <https://nlc.nebb.org>.

If you have any questions about the NEBB Learning Center or available courses, please feel free to reach out.



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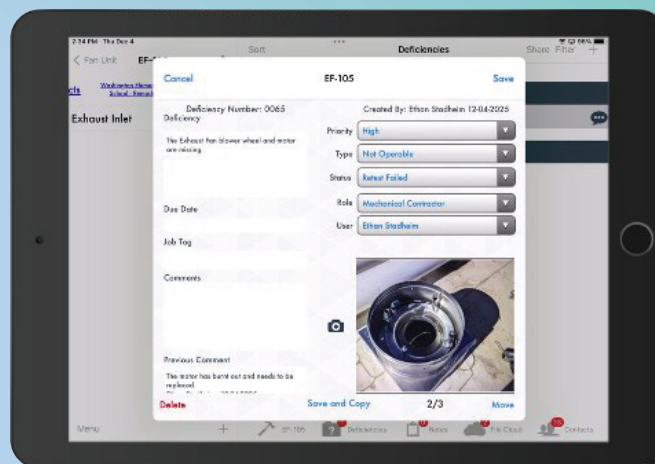
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Chapter News

Mid-South EBB Chapter

Ginger D. Slaick, Chapter Coordinator

With registration now open for the 2026 MidSouth EBB Recertification Seminar & Vendor Expo, the excitement has begun for the annual event that unites professionals, vendors, guests and educators in improving our industry. Whether attendees are most looking forward to gaining insight into the newest technology and techniques, refreshers on how to troubleshoot common project road-blocks, or simply meeting new colleagues, an incredible experience awaits every guest this year at Hilton Head Island.



The Sonesta Resort in Hilton Head Island, SC

The event begins on Saturday, August 29th and will continue through Sunday, August 30th for a jam-packed weekend of learning, innovation, and connection. A Spouse and Guest event is also being planned for Saturday, August 29th, so be on the lookout for more details. As always, the goal of the Recertification Seminar & Vendor Expo is to expand our reach, make lasting connections, and strengthen the ties within our communities.

Registration and payment must be completed by August 1st, 2026 for any professional or technician looking to attend, and MidSouth EBB hopes to see the best turnout yet. You can find more details and registration information by visiting www.MidSouthEBB.com

Capital-MarVa Chapter

Barbara Huber, Chapter Coordinator

In March, the Capital-MarVa Chapter held a TAB Refresher Seminar at the Chapter Office where Technicians learned engineering principles, charts, diagrams, problem solving & techniques, along with reviewing HVAC principles involved with TAB work and HVAC testing. The class instructors, Jim Huber and Jim Kelleher, have over 70 years combined industry experience and are both past Presidents of the Capital-MarVa Chapter and NEBB. We are grateful for the valuable mentorship they shared.

Capital-MarVa also led a technician training class in April on the introduction to sound and vibration measurement with 40 attendees, presented by Jim Huber, Jim Kelleher, and Jeff Capps. This class introduced the NEBB S&V program, as well as basic concepts and procedures for the measurement of sound and vibration as it pertains to the built environment. Knowledge of sound and vibration concepts and test methods are both excellent additions to be added to any technician's repertoire.



Participants in the TAB Refresh Seminar



Great Plains Chapter

Meredith Carr, Chapter Coordinator

*** Vendor/Member Appreciation: Thursday, October 1st, 2026, 4:30 to 7:00 pm, at Tap In at the Greenhouse, Overland, KS**

Join fellow members and valued vendor partners for an evening of networking, appreciation, and fun at our Member/Vendor Appreciation Event. Whether you're looking to build new connections, catch up with colleagues, or simply unwind after the workday, this is the place to be.

Enjoy great conversation, a relaxed atmosphere, and the opportunity to strengthen the partnerships that keep our industry moving forward.

*** Annual Recertification Seminar - Friday, October 2nd, 2026 at Marriott Kansas City/Overland Park**

This seminar is designed to keep you compliant, informed, and connected

Florida EBB Chapter

Terry T. Wichlenski, Chapter Coordinator

We are offering the TAB Practical Exam when we have at least two candidates and we have an exam site available. Contact our Chapter Coordinator, Terry at 727-240-4254 or Febbchapter@nebb.org for new dates as we are always adding them. You can also find them on the NEBB website.

Bonneville EBB Chapter

Shelley Lester, Chapter Coordinator

The Bonneville EBB Chapter held their 2026 Annual Meeting and Recertification Seminar on Friday April 10th in Salt Lake City, Utah.



Intermountain Hydronic Systems (IHS) hosted the event in which 42 CPs and CT's, 28 Utah ASHRAE members, and NEBB Board of Director and TAB Committee Chairman Don Pittser attended.

Joe Stagg of IHS provided 4 hours of total system Hydronics Training in IHS's state-of-the-art hydronics lab demonstrating the real time impacts system variations can have on buildings and their mechanical systems.

Utah ASHRAE and Bonneville EBB members enjoyed a candid conversation regarding all aspects of the built environment during an hour-long industry round table luncheon.

Tennessee EBB Chapter

William Bailey, Chapter Coordinator

TEBB 2026 CEC training was held in Bartlett, TN. We had speakers from Greenheck, Belimo, and Wimberly Sales to educate our group and all did very well with their presentation. All attendees had an enjoyable day and ate some "Memphis HOT" chicken for lunch, which was outstanding as well. Our Board members had a mid-year meeting during the lunch break to discuss the topics that were listed on the agenda. I am pleased to say that we had a couple of guys expressing interest in being involved with the YPN, so we proceeded to submit their info to NEBB's HQ for admission once reviewed. ●





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2026 NEBB TECHNICAL SEMINAR SCHEDULE



AUGUST

Retro-Commissioning for Buildings (RCx)

August 17 - 20, 2026
NEBB TEC, Gaithersburg, MD

Cleanroom Performance Testing (CPT)

August 24 - 26, 2026
NEBB TEC, Gaithersburg, MD

SEPTEMBER

Testing, Adjusting, and Balancing (TAB)

September 17 - 20, 2026
IMI Training Center, Irving, TX

Sound and Vibration Measurement (SV)

September 21 - 24, 2026
NEBB TEC, Gaithersburg, MD

Building Enclosure Testing (BET)

September 28 - 30, 2026
NEBB TEC, Gaithersburg, MD

OCTOBER

Testing, Adjusting, and Balancing (TAB CT)

Oct 19 - 21, 2026
Renaissance Hotel, Asheville, NC

**If you are interested in
attending a seminar, follow
these simple steps:**

1. Go to www.nebb.org click on events and select your seminar.
2. Download the brochure and register through the Certelligence Portal.
3. Questions? Please contact us!

