

The NEBB Professional

2025 – Quarter 3

Cover Story:

Certified vs. Non-Certified Reports: What Every Design Professional Needs to Know



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Contents

Quarter 3 – 2025

3 PRESIDENT'S MESSAGE

Features

- 6 **EVP Update**
By Tiffany Meyers
- 8 **Certified vs. Non-Certified Reports: What Every Design Professional Needs to Know**
By George E. Martin
- 13 **ASHRAE 110 Update: Fume Hood Testing**
By Don Fedyk
- 15 **Proper Project Design Review and its Impact on Job Success**
By Erik Dlugajczyk
- 17 **Exploring Magical Memphis: Let the Bluff City Cast Its Spell**
- 21 **2025 NEBB Pre-Conference Program Guide**
- 36 **Q+A: NEBB Across the Generations**
With William Bailey
- 38 **War Stories: The Evolution of TAB Instruments**
By TAB Committee members
- 41 **The NEBB Toolbox: Instrument Changes for the 2026 Recertification Cycle**
By Jeff Schools
- 43 **Chapter Updates**



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President's Message

As this is my last message, I want to start off and say what an honor it has been to serve as NEBB President this past year. It has been the highest honor of my professional career, and I hope everybody feels the organization is on the right track for continued success and growth in the industry. As I always stress teamwork, I want to thank the NEBB Board of Directors, staff, committee volunteers, chapter coordinators, and chapter volunteers for working together to achieve our goals. Nothing would be possible without the contributions from our all-star team.

Finalizing our strategic plan earlier this year was a milestone task and the culmination of about 18 months of work. This plan sets the direction of the organization for the next three years and will maintain our focus on keeping NEBB as the premier certification organization. We will continue to review the plan to ensure we stay aligned with our strategies and make adjustments when necessary.

Our technical committees are working hard to improve their training and education programs as the Robert B. Gawne NEBB Training and Center allows them the capability of enhancing hands-on instruction. Additionally, the Building Enclosure Testing discipline now offers a practical exam at the training center. Recent technical seminars have shown strong attendance and the past two TAB CP seminars have sold out. NEBB is continuing to grow in Certified Firms, Certified Professionals, and Certified Technicians.

Our chapters are continuing their recertification seminars throughout the year. I was lucky enough to attend and give the board update at the Bonnevillie, Florida, Canada (virtually), Mid-Atlantic and Northeast seminars. Thank you to all the coordinators, board members, and technical committees for your excellent work in planning those seminars.

If you are someone who is not involved in this organization at either the local or national level, I encourage you to get involved. The knowledge you will gain is invaluable and makes for a highly rewarding experience.

As we prepare for the Annual Conference at the Peabody Hotel in Memphis, I want to express my appreciation for the great team that took on the large feat of putting it all together.

I also want to give a special thanks to Luis Chinchilla as his tenure on the Board of Directors and Executive Finance Committee will come to an end after the Annual Conference. Luis has been a driving force with his strong leadership, positivity, and dedication to the organization. I know he will enjoy the extra time he now has with his wife and children as he rides off into the sunset on his Pure Spaniard Stallion named Tornado. Pura Vida!



My theme for the year has been "Guiding NEBB Towards Tomorrow through Collaboration and Innovation" and our annual conference is the best place for us all to collaborate together with our peers, industry experts and exhibitors. I am looking forward to a productive conference with some fun events sprinkled in, as well.

In closing, I want to thank everybody that had faith in me to lead NEBB this past year and everybody that helped me along the way. That is a long list, as there are tremendous volunteers and staff members that work so hard for the best interests of this organization. NEBB is a family and there may be some squabbles, but in working together, we all come out better in the end. I have made some lifelong friends through my journey and hopefully not too many enemies.

I'll see you in Memphis! Cheers!

Mike Kelly
NEBB President

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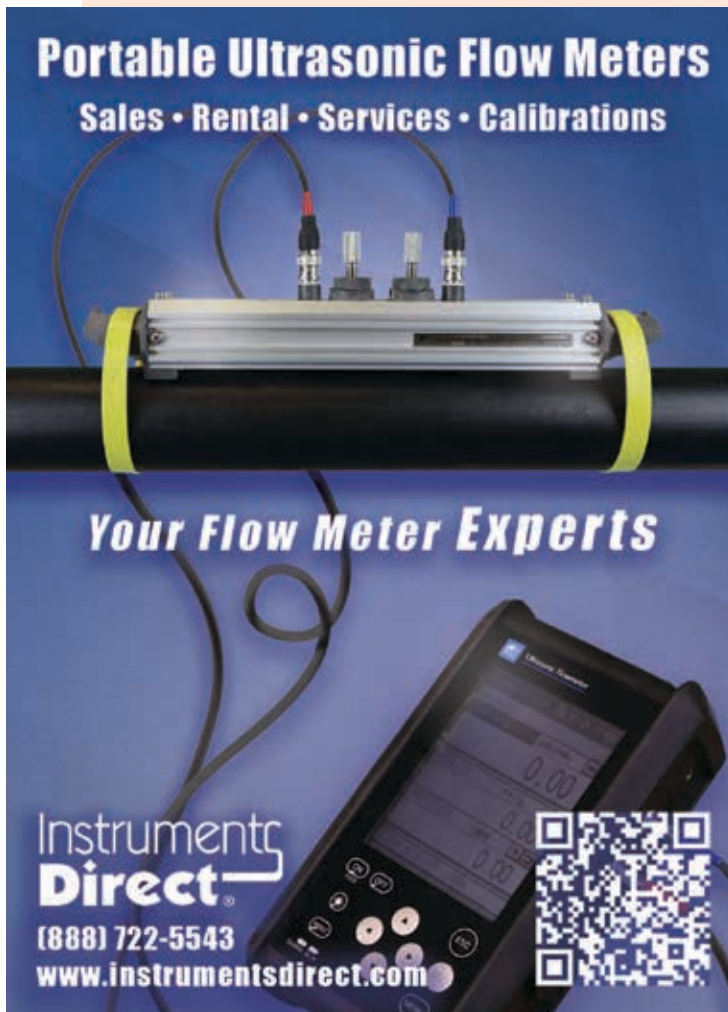


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Letter from the Editor



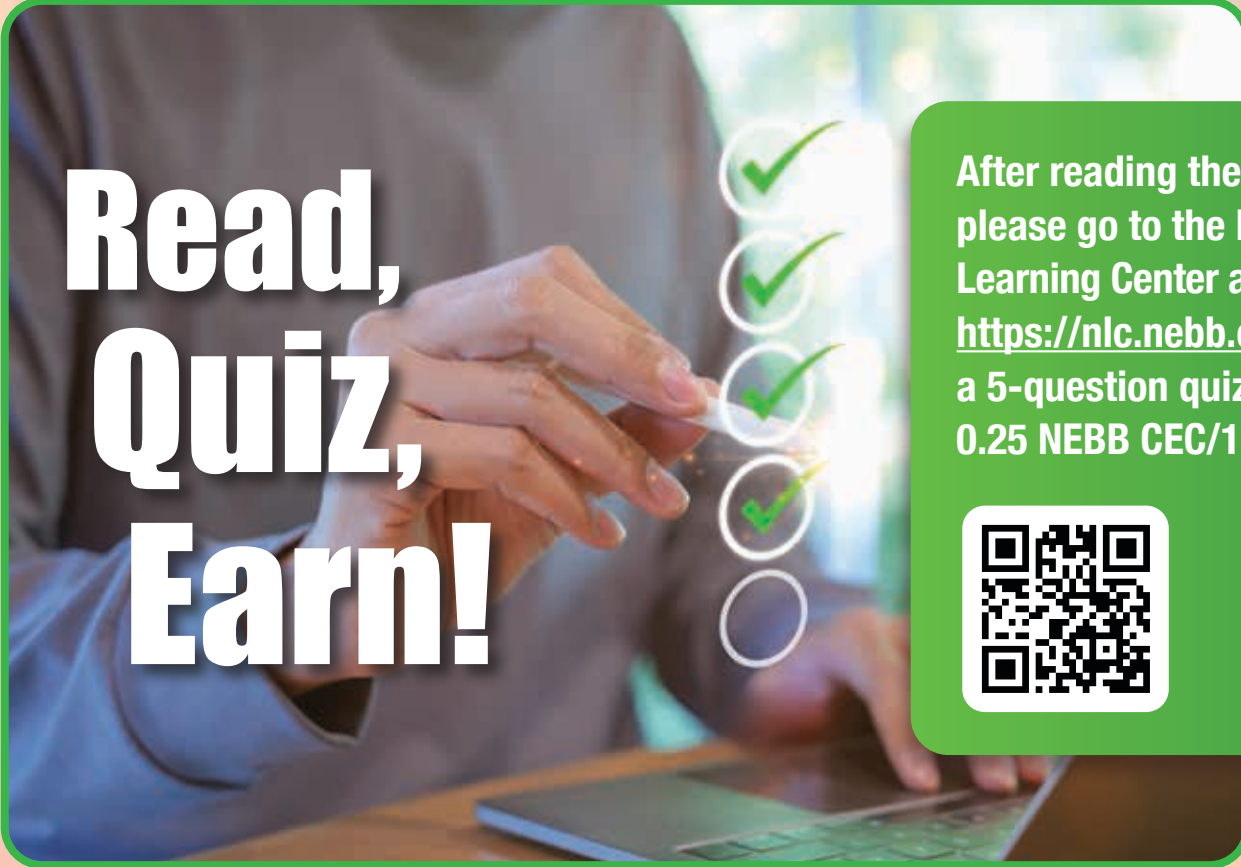
Welcome to the Q3 issue of *The NEBB Professional*.

In this issue, we highlight the ways NEBB professionals uphold a higher standard in the industry, continue to lead with technical expertise and a strong commitment to quality, and keep up as the industry evolves. Looking ahead, the 2025 NEBB Annual Conference will soon take place in Memphis, and readers can utilize this issue's content to help prepare and plan their experience.

As always, thank you for being part of this community of dedicated professionals. Your work and your commitment to excellence are what keep NEBB's reputation strong and future-focused, and that is the very content we wish to exhibit in this

publication. If you have an idea for an article you would like to see in a future issue of this magazine, please reach out to editor@nebb.org.

Kerri Souilliard,
Editor



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EVP Update

By TJ Meyers,
NEBB Executive Vice President

"Guiding NEBB Towards Tomorrow Through Collaboration and Innovation" is more than this year's Annual Conference theme: it reflects where we're headed as an organization. From new initiatives to important certification updates, NEBB is focused on preparing our certified individuals and firms as well as the industry for what's ahead.

We're especially excited to bring that vision to life at the 2025 NEBB Annual Conference in Memphis, TN. Held November 6–8 at The Peabody Hotel, the conference will be packed with education, networking, and innovation, and, as always, a chance to celebrate the people who make NEBB what it is. (Approved and registered candidates, don't forget: exam day takes place the day before the conference begins.)

As part of this forward momentum, I want to share an important update about Continuing Education Credits (CECs). Starting with the 2026 recertification cycle, which opened August 1, 2025, NEBB will only accept CECs from the NEBB-Approved CEC list. Non-NEBB credits will no longer count toward recertification.

That means any credits you earn for the 2026 cycle (between January 1–December 31, 2025) must be from the NEBB-approved list. Options include:

- The NEBB Annual Conference
- Chapter recertification seminars
- Courses from the NEBB Learning Center
- NEBB technical seminars (taken within the qualifying year)
- New NEBB certifications (achieved within the qualifying year)
- ASHRAE/NEBB approved eLearning courses (over 60 pre-approved courses are available, in both metric and imperial units)
- OSHA 10-hour or 30-hour safety courses

You can also reference the NEBB website for more information as you plan and pursue your continuing education credits. This change ensures that every CEC supports consistency, quality, and relevance in your professional growth as a NEBB-certified professional.

Thank you for your commitment to excellence and for helping us guide NEBB towards tomorrow. We can't wait to see you in Memphis this November! ●





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Certified vs. Non-Certified Reports: What Every Design Professional Needs to Know

By George E. Martin, PE

A somewhat uncomfortable truth about being a design professional is that you are responsible for reviewing and approving reports provided by other contractors while not necessarily being an expert in the services those contractors provide. That being said, a good architect or engineer will have a general knowledge of each of these disciplines and be able to identify what makes sense or whether something looks out of place. There are nuances, however, to some of these disciplines that your average design professional might not be aware of. These details make a difference in whether the report being reviewed is *actually* providing what the design professional is responsible for delivering to their client. A certified report includes certain benefits and assures the end user that the work provided by that particular service provider was performed professionally and correctly. It also includes a form of insurance to the end user in the event the work was incorrectly performed, providing a means of corrective action so they receive the system or facility they paid for, functioning as it should.

What exactly certifies a report? What should design professionals lookout for to ensure that the specified quality, performance, and warranty are provided to their client? But first and foremost, why exactly should you want a certified report? *Why does NEBB certification on a report bring more value?*

Why You Want a NEBB Certified Report

NEBB certification is more than just a pretty stamp on a cover page. There are strict requirements that must be adhered to in order for a report to qualify as certified—and liability on the part of the service provider is involved!

To begin, a NEBB Certified Report indicates that the work performed complies with the NEBB Procedural Standards under which that work is classified. For example, a NEBB Certified Testing, Adjusting, and Balancing (TAB) Report is an indication that the Certified TAB Firm balanced the systems shown in

that report in a manner that complies with the latest NEBB TAB Procedural Standards, which is currently *Procedural Standard for Testing Adjusting and Balancing of Environmental Systems (9th Edition-2019)*. But how can a design professional be assured that this is the case?

NEBB requires that a certified firm retain a copy of the latest Procedural Standards for each discipline in which they are certified to offer services. As another example, if a given firm is NEBB certified as a provider of Fume Hood Testing and Cleanroom Performance Testing, that one firm must have a copy of the latest procedural standards for each of those certified disciplines. For reference, the latest versions of these are the *Fume Hood Testing Procedural Standards (2nd Edition, 2016)* and the *Cleanroom Performance Testing Procedural Standards (3rd Edition, 2009)*. The fact that NEBB requires this firm to carry these Procedural Standards further allows NEBB to hold the Certified Professional (the individual certifying the report) responsible for ensuring that the work performed in these areas was performed according to those standards.

All of this is with the objective of providing to the end user what is perhaps the most valuable aspect of a certified report: NEBB's Quality Assurance Program (QAP). The NEBB QAP is a means of ensuring that should all else fail, the customer is not left with a malfunctioning, or even non-functional, system or facility. This program is signed onto by every NEBB Certified Firm and provides a pathway for NEBB as an organization to mediate and resolve any issues that may arise on a given project where a client believes that the work shown on a certified report was not performed in compliance with NEBB Procedural Standards. It should be noted that the NEBB QAP is only applicable to projects within the United States or Canada that have been specified for completion in accordance with NEBB's applicable Procedural Standards and delivered by a NEBB Certified Firm. **If the report is not a NEBB Certified Report, then the QAP does not come into effect, irrespective of whether the company providing the report is a NEBB Certified Firm.**

It should be noted NEBB does not mandate that all reports issued by a NEBB Certified Firm be a NEBB

"The NEBB QAP ensures swift, single-source mediation and resolution of disputes between NEBB Certified Professionals and their customers. Under the QAP, NEBB will intervene on any project if the customer feels that a NEBB Certified Firm has failed to perform in accordance with NEBB Procedural Standards."

Source: <https://www.nebb.org/quality-assurance-program/>

Certified Report. Although a firm may adhere to the data reporting, instrumentation, and even procedural requirements outlined by NEBB and carry NEBB certification in a given discipline, these factors do not result in a report being automatically certified and backed by NEBB's Quality Assurance Program. While all NEBB Certified Firms are *encouraged* to certify all their reports, a firm may choose not to certify a given report for various reasons. Some of the reasons for this include, but are not limited to: the scope of work on a project being such that NEBB does not offer certification of the work performed (as in the case of duct air leakage testing reports, system readiness reports, or pre-construction duct traverse readings), a firm having limited availability of certified personnel, or the simple fact that not certifying a report means the firm does not need to collect as many readings as would otherwise be required. NEBB Procedural Standards delineate very specifically what work can be certified and what is required in order to certify that work. Consequently, a design professional should be familiar with both the specifications they provide to service providers, but also with the NEBB Procedural Standards governing the methodology and workmanship of the work performed to ensure that the requirement of a certified report is being met. That being said, for the benefit of design professionals required to review these reports and as a kind reminder to all NEBB Certified Professionals, this article will provide a brief overview of what required items make up a NEBB Certified Report.

What Constitutes a NEBB Certified Report?

These discipline-specific Procedural Standards are far from elementary documents. If you ever read through one, you will quickly note that these thoroughly researched, comprehensive documents cover most, if not all, areas of the discipline over which they hold authority. These standards are all written by NEBB Certified Professionals, (some of whom are licensed professional engineers), with decades of combined experience in their industries and from locations across the globe. The quality of these standards can be further validated by the fact that some are also ANSI accredited, as in the case of the *Whole Building Technical Commissioning of New Buildings Procedural Standards (2nd Edition, 2019)* and the *Technical Retro-Commissioning of Existing Buildings Procedural Standards (3rd Edition, 2019)*. The Procedural Standards provide a pathway for the disciplines discussed therein to be performed correctly, with the end result being a system that works as intended. **A NEBB Certified Report must document work performed in accordance with the NEBB Procedural Standards for that discipline.**

Aside from the direction and methodology provided by these guiding documents, NEBB certifies the individuals performing the work. For any individual to be a NEBB Certified Professional or NEBB Certified Technician, they must meet the NEBB requirements on education and experience, as well as pass proctored written exams that test their technical knowledge and/

or practical exams (hands-on testing using the appropriate field instrumentation) in which the candidate is required to demonstrate their ability to perform the tasks typically encountered in their discipline. These exams are a means of verifying that the candidate for certification possesses the requisite knowledge to perform the tasks required of them and can complete these tasks in harmony with the Procedural Standards (of which, again, each firm is required to retain a copy). While being a NEBB Certified Professional does not in itself guarantee that an individual will be able to solve every problem they ever encounter, it does provide some assurance that they will be able to at least articulate any issues encountered and work with other professionals to find a reasonable solution. **In order for a report in any NEBB Discipline to be certified, the work being reported on must have been performed with a NEBB Certified Technician or NEBB Certified Professional onsite while any testing is being performed. Non-certified technicians or apprentices/trainees must be supervised by the NEBB certified personnel for work being included in the NEBB Certified Report.**

Further, NEBB requires that each certified firm retain a full set of calibrated equipment - as outlined by the NEBB Instrument Requirements - for each discipline (available on the NEBB website). This allows the firm to have a means of verifying any data collected by their team members and ensures that the readings and measurements shown in the report are accurate.



It further allows the NEBB Certified Professional a way of working with other project team members (usually the commissioning provider) should additional verification be required. Having a calibrated set of all the instruments required by NEBB also means that in the event the project requires some obscure measurement or reading in order to be considered complete, it is likely that the firm already possesses the means of taking that reading with one of the instruments in its possession. **A report is not considered certified unless it includes a complete list of calibrated instruments, along with current NIST or NMI traceable calibration certificates, maintained by the firm (as required by NEBB), showing a calibration date within no more than one year from the date on which the work was performed.**

Provided the above requirements are satisfied, the report can rightly be provided with a certification page. This certification page is where the statement of quality assurance is noted. The certification page is typically (though not always) the 2nd page of the report, immediately following the cover page and preceding the Table of Contents. This certification page is where the NEBB Certified Professional states that the work performed is compliant with all NEBB requirements for that specific discipline. This page, when included in a report that complies with all the above noted requirements, is what distinguishes the report as a NEBB Certified Report—not only proving the quality of workmanship which follows the standards issued by this organization, but is also backed by training, expertise, and a full set of calibrated instruments. **A report is not certified unless it contains the certification page, with the NEBB Stamp of the Certified Professional and the exact wording contained in the NEBB Procedural Standard for report certification, included within the report.**


Deception and Tricks of the Trades

After reading the above, you may be wondering whether the reports you have received from NEBB Certified Firms have complied with all the requirements. In part, the intention of this article is to protect the client and end user from reports that claim to comply with NEBB's requirements, but fail to meet the standard. The NEBB



Compliance & Affairs Committee (CAC) has the responsibility of following up on firms that claim to be NEBB Certified, but either do not perform the work in accordance with the Procedural Standards or issue reports that do not meet the above-noted requirements. How do these firms manage to submit reports to their clients and get them approved, though? Let's review two of the most common methods used.

Certificates: There is no way to claim your report is certified unless you have a certificate to back it up. This much is clear and it is often the main item searched for when a report is submitted. Sometimes, a report can be submitted with the Certified Firm's or even Certified Professional's certificate included in the report and alongside the test sheets. Often, this gives the appearance of validating that the report was performed by certified personnel and can be accepted by the design professional. However, as noted above, the certificate is not actually a requirement for a certified report. As a matter of fact, it does not need to be included in the report at all unless the design professional responsible for reviewing and approving the report specifically requests it. If any certificates for the personnel are included in the report, these should be the certificates of the certified professional and/or technicians who personally performed the work. This can be provided as a means of verifying to the design professional that the names shown on the test forms belong to the certified individuals who performed the work, but again, this is not required by NEBB. To reiterate: **Inclusion of a firm's or individual's NEBB Certificate in a report does not mean the report is certified.**



The Stamp: Another tell-tale item that most people know to look for on a report is the stamp of the Certified Professional.

Since there are other certifying organizations that provide stamps to their members for use in providing certified documentation, the majority of people are trained to look for a stamp on the cover sheet of a report. NEBB provides stamps only to Certified Professionals who are currently employed by Certified Firms. Thus, a NEBB stamp will contain both the name of the NEBB Certified Professional and the NEBB Certified Firm by which they are employed. Moreover, NEBB requires that the stamp also be provided on a report with the Certified Professional's signature as an indication that they have personally reviewed the report and has determined that it meets the requirements outlined by NEBB. **While a certified report must have the stamp of the Certified Professional responsible for reviewing it, this stamp alone (or in unison with only the certificates, as mentioned in the previous paragraph) does not certify a report.**

Protecting YOU and the NEBB Name

As previously mentioned, NEBB has a committee dedicated to working with the service providers who fail to meet NEBB's standards while submitting reports that are supposed to be NEBB certified. While the NEBB CAC does have disciplinary options it can choose to exercise, the primary objective of the organization is to provide mentorship and guidance, with help from the discipline-specific Technical Committees, to firms and professionals that may legitimately need additional training. This committee works closely with NEBB's technical committees to provide feedback to firms on the content, composition, and formatting of their reports. The purpose of this mentoring is that it will ultimately help a firm to improve the quality of their reports and maintain the high standards for which NEBB is known.

That notwithstanding, this article aims to educate you as a design professional and/or building owner or manager. If you personally know what to look for and the individual items that are required to be included in a certified report, then issues will rarely, if ever, escalate to the point of requiring intervention from NEBB. An additional benefit to this training is that you will personally begin to notice the difference in the reports you receive and will be able to independently determine whether the firms you are hiring are providing you with the quality product you require. Over time, any bad actors (and, to be fair, there are very few of these relative to the number of quality, ethical NEBB Certified Firms) will either be pushed by the market to comply with NEBB's standards or have to search for work not requiring certification – another reason why NEBB Certified Reports should be a standard requirement across all project specifications.

In conclusion, it is worth noting NEBB is not the only organization that provides certifications to individuals and firms in various disciplines. Often, project specifications note a number of acceptable certifications that a design professional is willing to accept in lieu of NEBB certification and each of those certifications have their own requirements. While NEBB Certified Firms believe that their certification is the best, it is the responsibility of each design professional to be familiar with the qualifications and requirements of any other certifying institution. Additionally, it is well within the rights of any firm to choose the standards by which they will abide. For this reason, there are many firms that are certified through NEBB and other certifying organizations. A firm can, therefore, choose to certify any report with whichever certification they choose, provided these meet the requirements outlined in the project specifications. NEBB is not legally able or in the business of forcing firms to only certify reports using their NEBB credentials. We just believe that the NEBB standard is the gold standard and should be what any design professional requires when they need a job done right. ●

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ASHRAE 110 Update: Fume Hood Testing

**By Don Fedyk, NEBB Fume Hood Testing CP,
ASHRAE 110 Committee Member**

Since its inception, ASHRAE 110 has provided the industry with an effective means of evaluating the performance of laboratory fume hoods. The three tests—face velocity, visualization, and, of course, the tracer gas containment—allow the tester to qualitatively and quantitatively measure the fume hood's containment ability. In various locations, there are three ratings that can be determined as well: 1) AM, or As Manufactured, 2) AI, or As Installed, and 3) AU, or As Used. Each of these tests provides especially useful information for future fume hood development as well as for evaluating the performance of the hood.

The As Manufactured testing is done at the manufacturer's facility, verifying the design of the hood. As Installed testing is completed when the hood is installed in the laboratory setting and can determine the various laboratory influences on its performance, such as door openings or diffuser placement. AU, on the other hand, considers the actual way the hood is being used, with hot plates and ongoing experimentation.

The ASHRAE 110 Committee is continuously looking to improve or refine the test procedures. Refinements through appropriate testing have been accompanied by new technological advancements that help develop modern technology. While this may sound like a lot of technical mumbo jumbo, the creation of a more efficient delivery system—mainly the ejector—can and will revolutionize the necessary dispersion required for the successful performance testing of a critical piece of laboratory equipment. The process of introducing

gas or liquid is a significant requirement of the testing protocol to create a specified concentration within the test chamber. The introduction of 3D modeling and printing has been beneficial in allowing for speedy refinements in the various ejector models for the testing, whether the large alternate ejector or the vertical prototype.

Another important innovation was the use of different instrumentation in the testing protocol, such as the photoionization detector, or PID, which is usually calibrated using isobutylene but can be calibrated for a specific gas or liquid. With the broad selectivity of the PID and the user already knowing the identity of the specific gas or vapor to be measured, the tester can accurately determine the exact concentration and detect whether any leakage may occur. The high sensitivity of the photoionization detector is designed to measure ppb and ppm concentrations of organic compounds. While PID sensors are not good at measuring explosive levels of hydrocarbons, they are perfectly accurate in detecting minute amounts of gases or liquids.

Propylene gas, also known as propene, is a colorless, flammable gas with a faint petroleum-like odor. It is derived from the cracking of naphtha, a byproduct of

petroleum refining, and is essential in various industrial applications. Propylene is also used to produce isopropyl alcohol (propan-2-ol). Propylene resembles other alkenes and is considered a volatile organic compound (VOC), with emissions regulated by many governments, but it is not listed by the U.S. Environmental Protection Agency (EPA) as a hazardous air pollutant under the Clean Air Act.

One of the many gases evaluated, propene has low acute toxicity from inhalation and is not considered carcinogenic. Chronic toxicity studies in mice did not yield significant evidence of adverse effects, and humans briefly exposed to 4,000 ppm did not experience any noticeable effects. However, propene has a dangerous issue in its potential to displace oxygen as an asphyxiant gas, as well as its high flammability and explosion risk.

Another substance tested was the atomization of isopropanol, most commonly known as rubbing alcohol, a colorless, flammable liquid with a strong, distinctive smell. It is considered a secondary alcohol, meaning that its alcohol carbon atom is attached to two other carbon atoms (C_3H_8O). Atomizing means changing a liquid—in this case alcohol—into exceedingly small droplets, almost a gas.

While both alcohol and propene are flammable, the reduced quantities used in testing have made both very intriguing as replacements, or at least as additional candidates, for gas/liquid tracer testing of fume hoods. With the public outcry over the use of sulfur hexafluoride as a tracer gas, an alternative would be more than welcome in the laboratory environment.

There are a few issues in the safe testing of laboratory equipment, with the fume hood presenting many challenges of its own. The ASHRAE 110 Committee has been tasked not only with finding methods of testing fume hoods, but also with doing so in an environmentally friendly manner. While these two goals are not synonymous, they are also not mutually exclusive. The most critical issue is to provide a safe working space in the laboratory, and that means providing a safe, efficient fume hood that has been rigorously evaluated for performance and containment! ●



Proper Project Design Review and its Impact on Job Success

By Erik Dlugajczyk

A proper project design review with an emphasis on TAB can vary from one company to another, but the standardization of such reviews can assist NEBB Certified Professionals (CPs) in achieving job completion with fewer headaches and delays. The reality is that many problems can be accurately predicted just from a proper design review long before Certified Technicians (CTs) are dispatched to a job. Since there are a variety of types of projects, I will focus on one type: Air Handling Units with VAVs, and the potential pitfalls of each. In this article, the Variable Air Volume (VAV) system design will be the primary focus.

Variable Air Volume Zones

When reviewed independently and outside of the HVAC system in which they are installed, VAVs are capable of certain minimum and maximum air flow parameters. However, when reviewed within the system in which they are installed, their limitations may be drastically different. In this example, we will utilize Titus DESV zones, with the individual zone parameters highlighted below.

An important note is mentioned on the bottom of the Titus submittal page: the controls parameters may be quite different. In fact, most controls transducers are rated for a minimum

of 0.01" w.c., which in standard air conditions translates to 400 fpm. Most of these zones listed in the submittal above, on the minimum side, calculate to an average of 255 fpm, which is far below the minimum standard of most controls transducers. When faced with this situation, a request for controls submittals is necessary, followed by an RFI to the design team to address the discrepancies. Let's take a look at a sample job:

A Tale of Two Zones

Let's explore two individual zones located on opposite sides of the building.

The Design:

Zone 3-01 is a 10" round inlet DESV exterior zone, requiring 1,320 CFM at maximum flow and 400 CFM at minimum flow. Calculated velocity at the inlet of the zone, at maximum, is 2,422 fpm. This would require somewhere between 2.0 - 2.5" w.c. of static pressure at the main duct just upstream of the zone inlet to achieve this design flow.

The zone serves the northwest corner office and is expected to be at its highest peak in the afternoon when the sun heats up the western side of the building. This zone is located 125 feet away from the source of the air (measured duct length).

Inlet Size	Total CFM Range	CFM Ranges of Minimum and Maximum Settings							
		PESV- Pneumatic Titus II Controller		PESV- Pneumatic Titus I Controller		AESV- Analog Electronic TA1 Controller		DESV- Digital Typical Controller	
		Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
4	0-225	50-210	90-225	65-210	90-225	50-225	50-225	30-225	30-225
5	0-350	70-300	125-350	90-300	125-350	70-350	70-350	40-350	40-350
6	0-500	80-345	145-500	100-345	145-500	80-500	80-500	45-500	45-500
7	0-650	120-515	210-650	150-515	210-650	120-650	120-650	70-650	70-650
8	0-900	160-700	285-900	205-700	285-900	160-900	160-900	90-900	90-900
9	0-1050	205-900	370-1050	260-900	370-1050	205-1050	205-1050	120-1050	120-1050
10	0-1400	250-1110	455-1400	325-1110	455-1400	250-1400	250-1400	145-1400	145-1400
12	0-2000	330-1460	600-2000	425-1460	600-2000	330-2000	330-2000	190-2000	190-2000
14	0-3000	525-2335	955-3000	675-2335	955-3000	525-3000	525-3000	300-3000	300-3000
15	0-4000	665-2970	1215-4000	860-2970	1215-4000	665-4000	665-4000	385-4000	385-4000
24x16	0-8000	1245-5555	2270-8000	1605-5555	2270-8000	1245-8000	1245-8000	720-8000	720-8000

Note: On controls mounted by Titus but supplied by others (FMA or Factory Mounting Authorization), these values are guidelines only. Controls mounted on an FMA basis are calibrated in the field.

The calculated friction loss is 0.372" at the main duct. Additionally, upstream of the zone inlet are three 90-degree rectangular elbows with turning vanes which are estimated at a pressure drop of 0.22" per elbow. The total system loss, upstream of the inlet of the zone, calculates to an estimated ≥ 1 " w.g. $((0.22" \text{ per elbow} \times 3) + 0.372")$. The mechanical schedule lists the air handling unit external static pressure (ESP) as 2.0" w.c.

Using those numbers, the discharge static pressure necessary at the air handling unit would need to be over 3" w.c., far exceeding the design external static pressure of 2" w.c. This zone should be included in the RFI as it will be the "key zone" in an attempt to set the operating static pressure, as this is the zone with the estimated highest amount of resistance. The design ESP of the AHU may not be sufficient to satisfy the maximum zone airflow requirement; design team input would be valuable prior to the start of the balance process.

Located on the eastern side of the building, Zone 3-09 is a 6" round inlet DESV interior zone requiring 100 CFM at maximum flow and 30 CFM at minimum flow. While this zone does not have some of the friction loss pressure challenges of zone 3-01, it is designed for an air flow amount lower, at minimum CFM, than the DESV submittals require. It is likely that this zone will not control at minimum airflow as the airflow through the transducer may be too low to control.

Analysis of Design

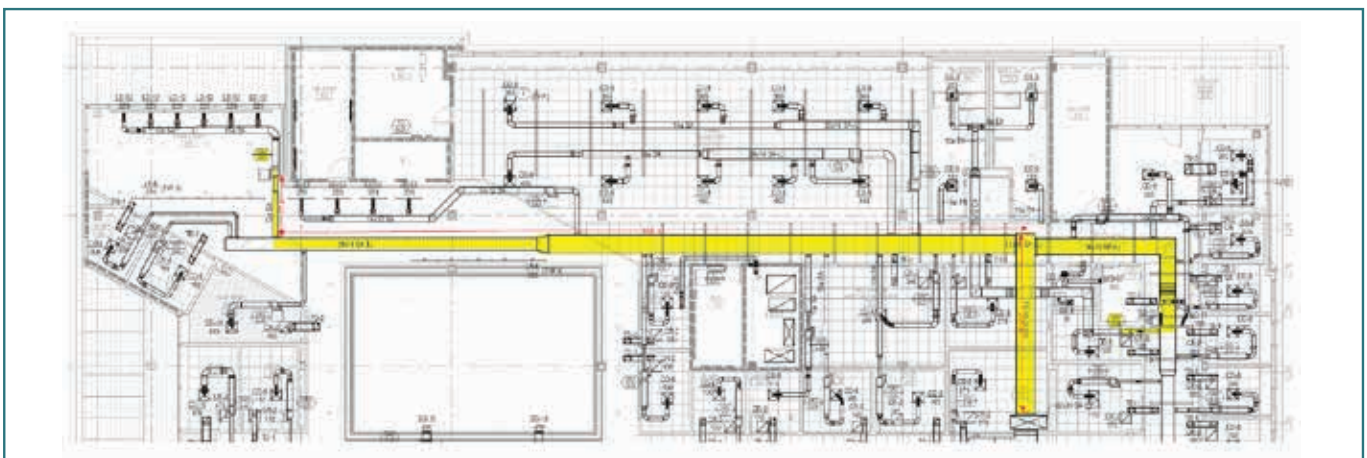
Zone 3-01 is located so far away from the source of air, and with so much estimated friction loss, that it is unlikely to achieve airflow even at optimum conditions. Not only is the main duct sized to produce high velocity/high friction loss, the inlet of the zone is sized for a high velocity, creating a high likelihood that the system is not capable of producing that much airflow at that great of a distance. Hopefully, the

RFI produces a redesign of a 12" zone inlet as well as some main duct resizing, which would produce a much higher likelihood of success for the maximum CFM requirement, while still satisfying the minimum flow requirement.

Zone 3-09 is oversized for the minimum flow setpoint, and hopefully the RFI produces a redesign of a 4" zone inlet which would satisfy both the maximum and minimum requirements.

With no changes to the design—aside from the specific flow issues already presented above—one additional issue will likely arise during normal operation. On a typical Southern California afternoon with the western sun beating on the side of the building and causing zone 3-01 to modulate to maximum flow, the interior zone 3-09 will likely be at minimum flow (at least part of the time). This would result in the VAV damper for 3-09 being open less than 10% due to the high static pressure in the duct required to satisfy zone 3-01. This may cause a whistling effect through the VAV damper. Since this is a library with Noise Criteria (NC) requirements, such a result would not be favorable or acceptable to the end user.

At this stage of the job, it would be very advantageous for the NEBB CF DCP to have backup emails, showing the issues were already flagged during the design review process and that this is not a balancing issue, but rather a problem for the design team to tackle. The problems presented here have no resolution available to be implemented by the test and balance contractor. Remember, this is the stage of the job when everyone is out of time and money. The owners, contractors, and inspectors just want a report, and all the balancer sees are problems. If some of those problems have already been addressed by the NEBB DCP, (even if those concerns are initially ignored by the design team), they are no longer the balancer's responsibility. ●





Exploring Magical Memphis: Let the Bluff City Cast Its Spell

Memphis, the Bluff City, hums with a rhythm that drifts through its humid air and settles into the soul of every traveler who wanders its storied streets. Nestled along the mighty Mississippi River and centered around the historic Peabody Hotel—this year's stunning 2025 NEBB Annual Conference venue—Memphis is more than just a place on the map. It is a living, breathing city where the heartbeat of music, mouthwatering food, and deep cultural roots converge. Transformation here is not just a theme; it's woven into the fabric of daily life.

Whether you're attending the conference or exploring on your own, Memphis offers experiences that linger long after you leave. From blues riffs spilling out of Beale Street clubs to the quiet reflection at the Lorraine Motel, the city blends entertainment, history, and hospitality in ways few others can.

A Brief Look Back

Founded in 1819 on the Chickasaw Bluffs, Memphis quickly grew into a major cotton market and river port,

thriving on its strategic location along the Mississippi. By the early 20th century, Beale Street had become the epicenter of African American culture and music. Blues legends such as W.C. Handy, known as the "Father of the Blues," composed here, laying the foundation for a sound that would echo far beyond the Mississippi Delta.

Rock 'n' roll soon followed. Sun Studio became the cradle of the genre, where Elvis Presley, Johnny Cash, Carl Perkins, and Jerry Lee Lewis recorded their earliest hits. Stax Records gave rise to the soul revolution, with Isaac Hayes, Otis Redding, and Booker T. & the M.G.'s reshaping the sound of American music.

Memphis is also remembered for its profound civil rights history. The assassination of Dr. Martin Luther King Jr. in 1968 left a scar that the city continues to honor and learn from through the National Civil Rights Museum. Today, visitors encounter immersive exhibits that highlight struggles and victories, making history palpable.

Through all of this, Memphis has remained unshakably itself: proud, soulful, and constantly reinventing.



Its streets, food, music, and landmarks tell stories that stretch from the past into the present, offering lessons in resilience, creativity, and cultural pride.

What Makes Memphis Tick

Memphis's identity is inseparable from its music. On Beale Street, one of America's most iconic stretches, blues, jazz, and rock riffs spill into the night air as neon signs cast a colorful glow. Live performances pulse in clubs where legends and newcomers alike keep the tradition alive.

But Memphis is not defined by music alone. Its role in civil rights history is equally profound. Beyond the National Civil Rights Museum, the city's historic architecture, stately homes, and vibrant neighborhoods speak to resilience and reinvention.

And of course, Memphis is world-famous for its food. Barbecue, fried chicken, soul burgers, and Southern classics define the city's culinary scene, reflecting both history and creativity. From hole-in-the-wall joints to innovative upscale dining, the Bluff City offers flavors that linger long after the meal is over.

Local Landmarks and Attractions

Memphis is a city best explored on foot or along its scenic riverfront. Each neighborhood offers its own rhythm, flavor, and story. Music lovers can follow the echoes of rock 'n' roll and soul, history enthusiasts can explore sites that shaped the nation, and outdoor adventurers can enjoy green spaces and riverfront views that rival those of any major city.

Beale Street: By day, museums, shops, and street performers fill the historic district. By night, it transforms into a neon-lit festival of sound. Step into a club, and you might hear the next B.B. King—or simply lose yourself to the rhythm that made this street world-famous.

Graceland: Elvis Presley's former home is kitschy, iconic, and undeniably fascinating. Tour the mansion, marvel at his jumpsuits, and see the wall of gold records that cemented his reign as the King of Rock 'n' Roll.

Sun Studio: Widely known as the "Birthplace of Rock 'n' Roll," this small studio is where music history was



made. Standing in the same recording room where legends first recorded is a goosebump-inducing experience.

Stax Museum of American Soul Music: Built on the original site of Stax Records, this museum celebrates soul legends with interactive exhibits, vintage memorabilia, and live performances.

National Civil Rights Museum: Located at the Lorraine Motel, this museum immerses visitors in the civil rights movement, from the Montgomery Bus Boycott to the March on Washington.

Levitt Shell: An open-air music venue in Overton Park where Elvis gave his first paid performance. Today, free concerts bring the community together with live music year-round.

Mississippi Riverfront & Tom Lee Park: Walk, bike, or scooter along scenic paths for sweeping views of the skyline and mighty river. Sunset strolls are magical.

Big River Crossing: This pedestrian bridge connects Memphis to Arkansas and offers panoramic river views, ideal for reflection or morning exercise.

Shelby Farms Park & Memphis Botanic Garden: One of the nation's largest urban parks, with trails, lakes, and open spaces. Nearby, the Botanic Garden offers lush, tranquil trails.

Mud Island River Park: A unique riverfront attraction with a museum, Riverwalk, and amphitheater. Great for learning history and enjoying outdoor recreation.

Crosstown Concourse: A redeveloped Sears building that now hosts restaurants, galleries, and co-working spaces, symbolizing Memphis's modern reinvention.

Peabody Duck March: Even if you're not staying at the Peabody, stop by for this daily tradition where mallard ducks march to the lobby fountain, led by the Duckmaster.

Bass Pro Shops at the Pyramid: A modern landmark with observation decks, an indoor swamp, and entertainment options, offering panoramic views of the city.

Railgarten: A local nightlife hub combining bowling, live music, and games in a lively, artsy setting.

Uniquely Memphis: Local Experiences



Memphis isn't just about what you see and taste, but even more so about what you feel. Don't miss these one-of-a-kind experiences:

- **Catch Live Music:** From Beale Street to Levitt Shell, music is everywhere.
- **Take a Street Art Tour:** South Main, Cooper-Young, and Broad Avenue are covered in murals and public art.
- **Riverboat Cruise:** See Memphis from the Mississippi, complete with skyline views and history lessons.
- **Earnestine & Hazel's:** Grab a Soul Burger in this legendary dive bar said to be haunted.

Best Bets for Eating Out in Memphis

Memphis cuisine is as legendary as its music. From slow-smoked meats to soulful sides, the bold and comforting flavors of Memphis are a treat for the tastebuds. Barbecue, of course, is the infamous star attraction, but the Bluff City culinary scene is much more than ribs and pulled pork—it's a reflection of the city's grit, creativity, and diverse cultural roots.

Traditions run deep here, as barbeque pitmasters guard family recipes passed down for generations. The debate between dry-rub versus saucy ribs can divide households, but everyone agrees that the smoke, spice, and tang define Memphis barbecue as a category of its own. Iconic spots like Central BBQ and Charlie



Bring your appetite to the south, NEBB Annual Conference goers! There's plenty of fun fare to try before you head back home. Use this quick "cheat sheet" of essential eats to get your bearings and enjoy well-known eats. But don't forget to leave room to wander, too, because in Memphis, the next unforgettable bite is often just around the corner.

Signature Southern Flavors

- **Central BBQ** – A Memphis institution, known for slow-smoked ribs and pulled pork
- **Gus's World Famous Fried Chicken** – Crispy, spicy, and unforgettable
- **Payne's BBQ** – Beloved for its chopped pork sandwich topped with tangy mustard slaw
- **Charlie Vergos' Rendezvous** – Legendary for its dry-rub ribs, served in a downtown basement since 1948

Upscale and Creative Eats

- **The Beauty Shop** – Once Priscilla Presley's salon, now a quirky Midtown restaurant serving globally inspired Southern dishes
- **Flight Restaurant & Wine Bar** – Innovative small plates and wine pairings
- **Restaurant Iris** – Award-winning French-Southern fusion by chef Kelly English
- **Chez Philippe at The Peabody** – Fine dining with French flair in a grand hotel atmosphere

Uniquely Memphis Meals

- **Barbecue Nachos** – A Memphis specialty found at Rendezvous and beyond
- **Sweet Potato Pancakes at Arcade Restaurant** – The city's oldest café, once a favorite of Elvis
- **Soul Burgers at Earnestine & Hazel's** – A dive-bar legend with a haunted past
- **Café Eclectic** – Perfect for coffee and pastries before a day of exploring

Vergos' Rendezvous keep those traditions alive, while smaller family-run joints like Payne's continue to remind visitors that some of the best meals come from unassuming storefronts.

Beyond barbecue, Memphis is full of surprises. The city's fried chicken scene, anchored by the fiery crunch of Gus's World Famous Fried Chicken, has earned national fame while beloved diners like the Arcade Restaurant dish up Southern comfort classics with a side of history. Creative chefs have also carved out their space, blending Memphis roots with global inspiration. At restaurants like The Beauty Shop, Catherine & Mary's, and Restaurant Iris, the menus are as inventive as the settings, offering modern interpretations of regional favorites.

What ties it all together is the unmistakable character of Memphis hospitality: unfussy, full of flavor, and deeply tied to place. Whether you're grabbing barbecue nachos at a ballgame, savoring French cuisine under the chandeliers at The Peabody, or biting into a Soul Burger at a storied dive, dining in Memphis always feels like a conversation between past and present.

*Come for the Conference.
Stay for the Soulful Experience*

After you enjoy sessions about leading transformation into a bright future at the 2025 NEBB Annual Conference from November 6-8, step outside and let Memphis show you all it has to offer. Whether wandering down neon-lit Beale Street, savoring the tang of a perfectly smoked rib, or standing quietly at the site where history changed forever, Memphis has a way of staying with those who visit. This is a city where transformation is woven into the fabric of daily life. Once a cotton capital, it became the heart of musical revolutions. Once scarred by tragedy, it grew into a beacon of resilience and reflection. Today, Memphis is vibrant, creative, and unapologetically soulful. As the Mississippi River flows unhurriedly past the city's bluffs, let Memphis remind you to slow down, listen, taste, and feel the stories it holds. Because once you've experienced the Bluff City, you carry a little of its rhythm home with you.

Welcome to Memphis. Welcome to the soul of the South.



2025 NEBB ANNUAL CONFERENCE

GUIDING NEBB TOWARD TOMORROW
THROUGH COLLABORATION
AND INNOVATION

PRE CONFERENCE
PROGRAM GUIDE





MESSAGE FROM THE PRESIDENT



Welcome to the 2025 NEBB Annual Conference at the Home of Blues, Soul and Rock & Roll!

Memphis is a city of striking combinations and boundless creativity, a place where passion, ideals and cultures converge in authentic ways. As Memphis is located along the Mississippi River, it is actually named after the ancient Egyptian city of Memphis which sat along the Nile River. I chose Memphis as it is rich in history and offers three of my favorite things; live music, great BBQ and Tennessee whiskey.

Our get acquainted reception is at Elvis Presley's Memphis Complex which features his collections of automobiles, stagewear, movie memorabilia, gold and platinum records. Our Memphis Music Attraction guest tour will take you to Sun Studio, Rock n' Soul Museum and Stax Museum of American Soul Music. Hopefully you will have time to visit other Memphis Attractions such as the Bass Pro Shop Pyramid, National Civil Rights Museum, Riverboat Tour, Big River Crossing and of course having a fun time on Beale Street.

Having our conference at the Historic Peabody Hotel was an easy choice. The Peabody was originally built in 1869 and then rebuilt at its present location in 1925. Known as the "South's Grand Hotel", it is legendary for its charm, elegance, gracious hospitality and rich history. The Peabody is listed on the National Register of Historic Places and is world-famous for its five resident Mallard ducks swimming in the lobby fountain.

My theme for this year has been Guiding NEBB Towards Tomorrow through Collaboration and Innovation and this conference is the best place for us all to collaborate together with our peers, industry experts and exhibitors. We have put together an informative conference filled with panel discussions, technical sessions and new this year we will have an exhibitor showcase.

I am also excited to have the goaltender of the 1980 USA Men's Olympic Gold Medal winning hockey team, Jim Craig as our keynote speaker. I feel teamwork is the key to making any organization thrive, especially NEBB because of the different entities that we have. Having Mr. Craig talk to us about being "Inside the Winning Locker Room" will equip us all with the practical tools needed to face challenges and ready us to align our team around a common purpose.

My wife Karen and I hope everybody enjoys themselves with the events that are planned and you find the technical sessions informative while learning new technologies from our vendors.

I want to thank the Board of Directors, Staff, Committee Volunteers, Chapter Coordinators and Chapter Volunteers for working together to achieve our goals and our Certified Professionals, Certified Technicians and Certified Firms for upholding the high standards of NEBB. Nothing would be possible without the contributions from our All-Star Team.

Enjoy your time in Memphis!

Michael J. Kelly
NEBB President



2025 NEBB CONFERENCE SCHEDULE AT A GLANCE

TIME	MONDAY - NOVEMBER 3
8:00 am – 5:00 pm	TAB CT Seminar - <i>Registration Required</i>
TUESDAY - NOVEMBER 4	
8:00 am – 5:00 pm	TAB CT Seminar - <i>Registration Required</i>
WEDNESDAY - NOVEMBER 5	
8:00 am – 5:00 pm	TAB CT Seminar and Exam - <i>Registration Required</i>
8:00 am – 5:00 pm	Closed Committee Meetings
12:00 pm – 5:00 pm	Annual Conference Pre-Registration Open
1:00 pm – 5:00 pm	NEBB Exam Day - <i>Registration Required</i>
7:00 pm – 10:00 pm	Appreciation Dinner - <i>Invite Only</i>
THURSDAY - NOVEMBER 6	
7:00 am – 2:00 pm	NEBB 27th Annual Golf Tournament - <i>Registration Required</i>
10:00 am – 6:00 pm	Annual Conference Registration and NEBB Store
3:00 pm – 4:00 pm	NEBB Past President's Meeting - <i>Closed</i>
4:30 pm – 6:00 pm	Opening Session: Welcome and Keynote Presentation Keynote Speaker: Jim Craig
6:30 pm – 9:30 pm	Get Acquainted Reception at Elvis Presley's Memphis Complex - <i>Open to Full Conference, Thursday-Only, and Guest Registrants</i>
FRIDAY - NOVEMBER 7	
7:00 am – 8:00 am	Breakfast
7:00 am – 4:00 pm	Annual Conference Registration and NEBB Store
7:00 am – 5:00 pm	Exhibit Hall Hours
8:00 am – 10:00 am	NEBB Discipline Panel: How AI and Technology Affect the Future of NEBB
10:00 am – 10:30 am	NETWORKING BREAK
10:30 am – 11:30 am	TECHNICAL TRACK SESSIONS Track 1 (Cx): Power Systems Analysis: Arc Flash and Coordination for the Commissioning Provider Track 2 (CPT Technology): Reimagining Cleanroom Certification: Robotics, AI, and the Path to Full Traceability
11:30 am – 12:30 pm	NETWORKING LUNCHEON
1:00 pm – 2:00 pm	TECHNICAL TRACK SESSIONS Track 1 (TAB): TAB and Cx Joint Panel "When a Project is not Ready" Track 2 (Business & Leadership): Great Technicians Reflect an Effective Leader



2025 NEBB CONFERENCE SCHEDULE AT A GLANCE

TIME	SATURDAY - NOVEMBER 8
7:00 am – 8:00 am	Breakfast
7:00 am – 2:00 pm	Annual Conference Registration and NEBB Store
7:00 am – 6:00 pm	Exhibit Hall Hours
8:00 am – 10:00 am	Business and Leadership Panel: Collaboration Between Leading Industry Organizations
10:00 am – 10:30 am	NETWORKING BREAK
10:30 am – 11:30 am	TECHNICAL TRACK SESSIONS Track 1 (FHT): ASHRAE 110 Advancement Track 2 (TAB and Cx): Woes of the Flows: Low Flow Air Delivery and Constant Airflow Regulators (CAR)
11:30 am – 12:30 pm	NETWORKING LUNCHEON
1:00 pm – 2:00 pm	TECHNICAL TRACK SESSIONS Track 1 (Technology): Technology in NEBB – The Past, Present, and the Future. Creating a Smarter Certification Track 2 (CPT and IAQ): Overview of Infection Control
2:30 pm – 3:30 pm	Town Hall – <i>Full Conference Registrants Only</i>
3:30 pm – 4:00 pm	Closing Session – <i>Open to Full Conference, Saturday-Only, and Guest Registrants</i>
4:00 pm – 6:00 pm	Vendor Reception – <i>Open to Full Conference, Saturday-Only, and Guest Registrants</i>
SUNDAY - NOVEMBER 9	
8:00 am – 12:00 pm	Board of Directors Meeting – <i>OPEN</i>

**NOTE: Track sessions and meals are open to Full Conference and One-Day Registrants on their registered day only.
Schedule times subject to change.*



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PLEASE PLAN ON VISITING OUR EXHIBITORS!

Exhibits will be set up for learning opportunities between sessions.
The following exhibitors have signed up with more to come!





2025 NEBB CONFERENCE ADVANCE PROGRAM

OPENING SESSION: THURSDAY, NOVEMBER 6 • 4:30 PM – 6:00 PM

1-CONTINUING EDUCATION CREDIT (CEC) AND 1-AIA CREDIT (LU)



WELCOME AND KEYNOTE PRESENTATION

KEYNOTE SPEAKER: Jim Craig

Inside the Winning Locker Room

Join us for Inside the Winning Locker Room, a powerful and inspiring keynote from Olympic gold medalist Jim Craig. Drawing on the unforgettable story of the 1980 U.S. Olympic Hockey Team, Jim reveals what it takes to transform a group of individuals into a unified, high-performing team.

With humor, heart, and hard-earned wisdom, he shares impactful lessons on leadership, trust, communication, and embracing change—all through the lens of NEBB's message of collaboration and innovation. Attendees will gain a renewed sense of purpose, practical tools for working through challenges, and a playbook for aligning behind a shared vision. Don't miss this opportunity to be inspired to lead with integrity, unite across roles, and win as one.



2025 NEBB CONFERENCE ADVANCE PROGRAM

MORNING PANEL SESSIONS: FRIDAY, NOVEMBER 7 • SATURDAY, NOVEMBER 8

FRIDAY PANEL SESSION: NEBB DISCIPLINE PANEL

2-CEC AND 2-AIA (LU) CREDITS

8:00 am – 10:00 am **How AI and Technology Affect the Future of NEBB**



SPEAKERS: Brian Keller – Principal, Cleary Zimmermann Engineers, LLC
Chad Mathews – Principal, Air Technologies, Inc.
Don Pittser – President, JEDI Balancing
Tiffany Russell – CEO, VTG, LLC
Erich Schiller – Commissioning Engineering Manager, MSTB
Mark Wasmund – NEBB Certified Professional – Fume Hood Testing, Testcomm LLC

MODERATOR: Jeff Schools – Technical Director, NEBB

Each Committee Chair will look at how AI and Technology will possibly affect the future of how they perform their respective duties.

SPEAKER BIOS: Panel speaker bios can be found on the NEBB 2025 conference website.

SATURDAY PANEL SESSION: BUSINESS AND LEADERSHIP PANEL

2-CEC AND 2-AIA (LU) CREDITS

8:00 am – 10:00 am **Collaboration Between Leading Industry Organizations**



SPEAKERS: Kim Jackson – Executive Director of Business Development, IFMA
Jeff Schools – Technical Director, NEBB
Sarah Maston – President Elect, ASHRAE

MODERATOR: Mike Kelly – NEBB President / Project Manager, Air Filtration Management

Representatives from NEBB, ASHRAE & IFMA will discuss collaboration efforts between their organizations and how their Mission and Vision can align with each other for the betterment of our industries.

SPEAKER BIOS: Panel speaker bios can be found on the NEBB 2025 conference website.



2025 NEBB CONFERENCE ADVANCE PROGRAM

TECHNICAL TRACK SESSIONS: FRIDAY, NOVEMBER 7 • 10:30 AM – 11:30 AM

TRACK 1: CX

1-CEC AND 1-AIA (LU) CREDIT

10:30 am – 11:30 am **Power Systems Analysis: Arc Flash and Coordination for the Commissioning Provider**

SPEAKER: Nathaniel Scott – Director of Power System Analysis, Brown Engineers



Electrical systems are critical to building performance, yet often overlooked in commissioning. This session demystifies power system analysis—covering load flow, short circuit, coordination, and arc flash studies—and shows how these tools uncover hidden risks. Learn how to advocate for reliable, safe electrical systems throughout a facility's lifecycle.

SPEAKER BIO: Nathaniel Scott has 18 years of intimate experience in the world of electrical safety, commissioning, and design. After spending the first half of his career in an arc flash suit performing power systems field services, Nathaniel now leads the power systems analysis team at Brown Engineers, in Little Rock, Arkansas.

TRACK 2: CPT TECHNOLOGY

1-CEC AND 1-AIA (LU) CREDIT

10:30 am – 11:30 am **Reimagining Cleanroom Certification: Robotics, AI, and the Path to Full Traceability**

SPEAKER: Andrew Wert – President, CertAir



Explore how robotics, AI, and data-driven strategies close compliance gaps, enhance reproducibility, and ensure NIST-level traceability—empowering cleanroom and TAB professionals to meet NEBB, ISO, IEST, and EU GMP standards while mitigating liability and inspiring industry-wide innovation.

SPEAKER BIO: Andrew Wert is Founder and President of CertAir, pioneering AI- and robotics-driven cleanroom testing. With leadership experience at Emerson, Danaher, and Air Techniques International, and an MBA from the University of Glasgow, Andrew bridges technical innovation and business strategy to deliver traceable, automated solutions for regulated environments.



2025 NEBB CONFERENCE ADVANCE PROGRAM

TECHNICAL TRACK SESSIONS: FRIDAY, NOVEMBER 1 • 1:00 PM – 2:00 PM

TRACK 1: TAB

1-CEC AND 1-AIA (LU) CREDIT

1:00 pm – 2:00 pm

TAB and Cx Joint Panel "When a Project is not Ready"



SPEAKERS: Brian Keller – Principal, Cleary Zimmermann Engineers, LLC
George Martin – Senior Commissioning Engineer, Loring Consulting Engineers
Glenn Putnam – Director of Utilities, Texas Christian University
Brian Sharkey – Chief Technical Officer, Airadigm Solutions



MODERATOR: Don Pittser – President, JEDI Balancing

Join us for an engaging discussion on the critical interplay between TAB and commissioning, and learn how to navigate project challenges to achieve excellence in your construction projects are not ready.



SPEAKER BIOS: Panel speaker bios can be found on the NEBB 2025 conference website.

TRACK 2: BUSINESS & LEADERSHIP

1-CEC AND 1-AIA (LU) CREDIT

1:00 pm – 2:00 pm

Great Technicians Reflect an Effective Leader



SPEAKER: Olaf Zwickau – CEO, Airadigm Solutions

Effective leadership towards your team can increase longevity, excellence and add tremendous quality to your overall organization. This presentation will share some key takeaways for adding to your leadership skills with insights on how to build a more productive and happier workforce.

SPEAKER BIO: Olaf is Founder and CEO of Airadigm Solutions, one of the nation's largest privately held air balancing firms. He has 30+ years of experience in the commercial air-moving industry, specializing in Testing, Adjusting and Balancing industry and in the energy savings market for Demand Control Kitchen Ventilation for commercial kitchens.



2025 NEBB CONFERENCE ADVANCE PROGRAM

TECHNICAL TRACK SESSIONS: SATURDAY, NOVEMBER 8 • 10:30 AM – 11:30 AM

TRACK 1: FHT

1-CEC AND 1-AIA (LU) CREDIT

10:30 am – 11:30 am ASHRAE 110 Advancement

SPEAKER: Gary Roepke – Sr. Product Engineer, Licensed PE, Labconco Corporation



ASHRAE 110 Equipment Review showing an early insight into the testing, development, round-robin testing proof, and potential equipment changes. The existing sulfur hexafluoride gas will be presented along with alternate non-green house gases and possible gas delivery system changes that reduce costs.

SPEAKER BIO: Gary Roepke is a Senior Product Engineer for Labconco Corporation and a registered PE. He develops fume hoods, ductless carbon enclosures, HEPA-filtered pharmaceutical enclosures, and glove boxes. Gary obtained his mechanical engineering degree (BSME) and Master's Certificate in Strategy and Innovation from the University of Illinois, Champaign, IL.

TRACK 2: TAB and Cx

1-CEC AND 1-AIA (LU) CREDIT

10:30 am – 11:30 am Woes of the Flows: Low Flow Air Delivery and Constant Airflow Regulators (CAR)

SPEAKER: Wesley Stanhope – CEO, Building Evolution Corporation



This session provides insight into balancing, verification, and commissioning challenges in high(er) performance buildings with low flow ducted air delivery systems. Systems reviewed include combinations of Constant Airflow Regulators (CARs) and manual dampers and have small tolerance for failure! Learn lessons applicable to design through field testing and balancing.

SPEAKER BIO: Wesley has over twenty years of leadership experience with commissioning, construction, and energy management of large-scale facilities for universities, commercial properties, state facilities, non-profits, and large multifamily developments. Wes currently leads the building commissioning practice at Building Evolution Corporation (BEC), a company which he founded in 2016.



2025 NEBB CONFERENCE ADVANCE PROGRAM

TECHNICAL TRACK SESSIONS: SATURDAY, NOVEMBER 8 • 1:00 PM – 2:00 PM

TRACK 1: TECHNOLOGY

1-CEC AND 1-AIA (LU) CREDIT

1:00 pm – 2:00 pm

Technology in NEBB – The Past, Present, and the Future. Creating a Smarter Certification

SPEAKER: Brian Hill – Mechanical Engineer, AccuTec Services, Inc.



By adopting emerging technology, NEBB can streamline data management, cut costs, and foster collaboration. Machine learning enhances efficiency, while AI methods like Retrieval-Augmented Generation and AI agents promise to further transform NEBB. These tools position NEBB professionals at the forefront of the industry, ensuring a smarter, more resilient future in the built environment.

SPEAKER BIO: Brian Hill, PE, is a Mechanical Engineer at AccuTec Services, Inc. in Lee's Summit, Missouri. He is a graduate of The University of Missouri – Kansas City. He holds NEBB Professional Certifications in Cleanroom Performance Testing and Testing, Adjusting, and Balancing and serves on the National Board of Directors.

TRACK 2: CPT and IAQ

1-CEC AND 1-AIA (LU) CREDIT

1:00 pm – 2:00 pm

Overview of Infection Control

SPEAKER: Marlene Linders – President and CEO, Philders Group Intl Inc/The Linders Health Institute



Construction in healthcare environments carries high risk for infection and regulatory non-compliance. This session explores infection control in the Environment of Care (EOC), covering dust containment, ventilation, waterborne pathogens, and regulatory shifts. Learn how proactive training and risk mitigation strategies protect patients and ensure safe, compliant healthcare construction projects.

SPEAKER BIO: Marlene is CEO Philders Group, Director of The Linders Health Institute. With advanced degrees in architecture, nursing science, she's a global speaker and Distinguished Lecturer for ASHRAE. Her work focuses on infection control during construction, and strategic consulting. She's led major projects, authored industry publications, and developed nationally recognized training.



2025 NEBB CONFERENCE INFORMATION

The Peabody Memphis • 149 Union Ave • Memphis, TN 38103 • (901) 529-4000

NEBB's Discounted Rates: \$279.00 (Single/Double Rooms)

To ensure the NEBB discounted room rate, reservations must be made by October 1, 2025. Group rooms may sell out, so don't delay! Rooms are subject to availability. Reservations made after October 1 will be on a space-available-and-prevailing-rate basis. State and local taxes are not included in room rates.

2025 NEBB CONFERENCE FEES

FULL CONFERENCE REGISTRATION	\$1350
<ul style="list-style-type: none"> • Opening Session on November 6 • Get Acquainted Reception at Elvis Presley's Memphis Complex on November 6 • Two full days of Technical Track Sessions (November 7 and 8) • Breakfast, Lunch, Morning and Afternoon Breaks (November 7 and 8) • Vendor Reception and Prize Giveaway on November 8 	
THURSDAY CONFERENCE REGISTRATION	\$350
<ul style="list-style-type: none"> • Opening Session on November 6 • Get Acquainted Reception at Elvis Presley's Memphis Complex on November 6 	
FRIDAY CONFERENCE REGISTRATION	\$700
<ul style="list-style-type: none"> • One full day of Technical Track Sessions on November 7 • Breakfast, Lunch, Morning and Afternoon Breaks on November 7 	
SATURDAY CONFERENCE REGISTRATION	\$700
<ul style="list-style-type: none"> • One full day of Technical Track Sessions on November 8 • Breakfast, Lunch, Morning and Afternoon Breaks on November 8 • Vendor Reception and Prize Giveaway on November 8 	
GUEST REGISTRATION	\$450
<ul style="list-style-type: none"> • Opening Session on November 6 • Get Acquainted Reception at Elvis Presley's Memphis Complex on November 6 • NEBB Guest Event Memphis Music Tour on November 7 • Vendor Reception and Prize Giveaway on November 8 	
GUEST REGISTRATION - MINOR (18 AND UNDER)	\$200
<ul style="list-style-type: none"> • Opening Session on November 6 • Get Acquainted Reception at Elvis Presley's Memphis Complex on November 6 • NEBB Guest Event Memphis Music Tour on November 7 • Vendor Reception and Prize Giveaway on November 8 	



2025 NEBB CONFERENCE ACTIVITIES

GET ACQUAINTED RECEPTION: THURSDAY, NOVEMBER 6 • 6:30 PM – 9:30 PM



Conference Reception at the Iconic Elvis Presley's Memphis Complex!

Kick off the conference with an unforgettable evening as you immerse yourself in the legacy of Elvis Presley — from his music and style to his enduring impact on pop culture.

Join fellow attendees for a relaxed night of conversation, music, and bites as we get to know one another and explore this legendary cultural landmark. Don't miss this unique opportunity to connect and experience a true piece of Memphis charm!

CONFERENCE GUEST EVENT: FRIDAY, NOVEMBER 7 • 9:00 AM – 12:00 PM



See the Sights and Sounds of Memphis!

Enjoy high-energy fun on this musical journey featuring Memphis' greatest attractions. Rock 'n Roll, blues, and a whole lotta soul – it doesn't get any better than this!

The Home of the Blues comes alive on this city tour aboard the nation's only music bus. All of the guides on this tour are professional Beale Street musicians who play and sing selections from the city's rich musical heritage, while entertaining you with comedy, history, and behind-the-scenes stories of your favorite Memphis personalities.

Along the way, you will see: Sun Studio (admission included), Beale Street (admission to Rock'n'Soul Museum included), Stax Studio (admission included) and The Lorraine Motel (drive by only).

Enjoy an exciting introduction to Memphis on this action-packed drive through the city. It's great fun for all ages!

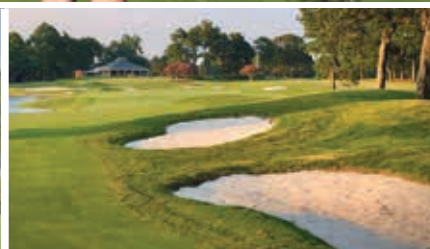
**This event is included in the Guest Registration, with limited capacity – RSVP is required to attend.*



NEBB 27TH ANNUAL GOLF TOURNAMENT

THE COLONIAL COUNTRY CLUB

Join us for the the 27th Annual Golf Tournament Thursday, November 6th, 2025 at The Colonial Country Club in Memphis! Shotgun start beginning at 8am. The Golf Tournament cost is \$150.00.



The Colonial Country Club is a legacy of hosting over 30 PGA Tour events and champions like Jack Nicklaus, Lee Trevino, and Gary Player, Colonial is a treasured landmark in the world of golf.

Players will have the rare opportunity to walk the historic South Course — ranked as high as the #4 golf course in Tennessee by Golf Digest — offering a rewarding experience for both seasoned golfers and enthusiastic beginners. The day will kick off with breakfast at the course, followed by an 8:00 AM shotgun start. After the round, enjoy lunch and an awards presentation as we celebrate the day's highlights.

Don't miss the chance to play where legends have competed and enjoy a great day on the greens with fellow attendees! If you are interested in playing golf during the 2025 Annual Conference, please send an email directly to events@nebb.org.

AGENDA

6:30 am: Bus Departure
7:00 am – 7:45 am: Grab n' Go Breakfast
8:00 am: Shotgun Start
Post Tournament: Lunch and Awards



2025 NEBB CONFERENCE PAYMENT INFORMATION

PAYMENT INFORMATION

Online registration is payable by credit cards (American Express, MasterCard and Visa).

OPTIONAL ITEMS

Activity	Date/Time	Cost
27th Annual Golf Tournament	November 6, 2025 (6:30 am – 2:00 pm)	\$150
Golf Club Rentals	November 6, 2025	\$100
NEBB Logo Polo Shirt (S – 5XL)	Pick up at Conference Registration Desk	\$45 (\$50 for 2XL – 5XL)
Optional NEBB Exam Day	November 5, 2025	Contact certification@nebb.org for details and pricing

CANCELLATION POLICY

Written request received before September 30, 2025	Full cancellation less a 25% admin fee
Written request received on/after September 30, 2025	Nonrefundable
No-show for any reason	Nonrefundable

CONTINUING EDUCATION CREDITS (CECs) AND AIA CREDITS (LUs)

- All of the educational sessions (including the Keynote speaker and the NEBB Town Hall) are awarded NEBB CECs and AIA LUs (Learning Unit through the American Institute of Architects).
- Electronic scanning will be done for each session in order to verify attendance and allocate the appropriate number of CECs and LUs to the CP or CT.

NEBB Across the Generations

Since 1971, NEBB has been serving firms and individuals that deliver high performance buildings and systems. As the premier international certifying association in the building industry today, NEBB thrives as a result of collaboration across various generations that all bring different experiences and perspectives to the table. We sat down with Tennessee EBB Chapter Coordinator William Bailey to discuss his personal journey with NEBB below:



The NEBB Professional (NP): What generation do you identify with?

Mark Wasmund (MW): Well, I definitely fall into the Baby-boomer generation. I was born in 1963.

NP: Briefly explain your journey with NEBB. How did you initially get involved?

WB: I started in the HVAC field as a residential installer while still in high school in the late 70s. I graduated high school and went to work in the trade of HVAC and did not attend college. I left the residential trade in 1981 and started in the commercial field of sheet metal installation, and then began working in TAB in the mid-1980s. I worked as a design-build sheet metal installer doing tenant buildout and remodels here in Nashville, TN. I would do the design and duct layout (engineering), relocate VAVs and air distribution, complete all the pneumatic controls, finalize installation, and perform the TAB work. During this process, we verified thermostat calibration and VAV functionality for air, water, and electric heat depending on the type of installation. This was referred to as a typical start-up review before it began to be called commissioning.

I had attended a TAB school for Environmental Engineering Consultants by Ernie Choat in the late 80s and early 90s. However, I realized that the education and training I received was not recognized, nor did it meet the specifications for project installations. I approached my manager on this and he asked me to pursue NEBB TAB Certification. I started studying for NEBB and thought I was a fairly knowledgeable guy until I took the TAB test in the fall of 1995 for the three categories. When I took the

test, you had TAB Fundamentals, Air, and Hydronics. I did not pass any of the categories and had a pitiful score on hydronics, but the other fields were really close to a passing score of 70. I then studied further, and in more detail, with a friend that was studying for his PE exam at the same time in order to test again in the spring of 1996. This time, I passed all three categories with time to spare. I performed my Practical testing for the Chapter Coordinator and I became a NEBB Certified TAB Professional.

NP: When you reflect on your NEBB journey, what was the turning point that inspired you to take on a leadership or volunteer role?

WB: After I became a NEBB TAB Supervisor for the company, they assigned me as a manager and I started growing a TAB group. After meeting the Middle Tennessee TAB chapter members, they asked me to step in as the Secretary Treasurer of the Middle Tennessee Chapter of NEBB. I later served as Vice President, and President as the years passed. When the Middle Tennessee Chapter merged with West Tennessee and we became the Tennessee Chapter of NEBB, I continued to work on the board, serving in various positions, including an appointment as TCC and Chapter Coordinator. Currently, I serve as the NEBB Chapter Coordinator since I have retired to a part-time role and no longer work for a certified firm.

NP: Can you share a moment during your time with NEBB that felt truly transformational—either personally or for the organization?

WB: While working with NEBB National, I realized that this was a very recognized organization and it made me

want to do more. In the middle of 2000, I decided to pursue both BSC and RCx. As I attended these seminars and national meetings, I decided I wanted to do more and started to move towards working at the National level as a volunteer in 2022 for the TAB Committee with Don Pittser and the guys. I am currently serving my third year term and enjoy these guys, as we have fun while we help with various tasks asked by the NEBB Board. Working with the TAB Committee, I realized a lot of the guys are really passionate while serving as members and care a lot about NEBB. The work that goes into the standardized documents that the Board and membership distribute to ongoing members and new individuals and firms coming into the organization is something we can all be proud of.

I will say that I have a lot of practical experience working with all kinds of systems in the fields of industrial and commercial services with air, hydronics, controls, and large residential systems. I also want to mention that I have enjoyed working with the staff of NEBB. These individuals are very helpful with any changes in technology like different computer programs and methods of storing and tracking files. In case you have not gathered, I am "old school" and sometimes struggle with the new methods. Having files and folders of my own is one thing, but trying to find specifics via the website and links is something totally new for me. Working with Tiffany and Christina has been a great experience, and I know I work on their patience when trying to step me through these processes. They have been very helpful in walking through answers to the different questions each of us has been challenged with while doing items in "Certelligence" or registration for companies and individuals.

NP: In today's fast-evolving industry landscape, how have you adapted your leadership style to stay ahead of the curve, and how has NEBB supported that growth?

WB: I definitely feel that the construction industry has been trying to push too hard to finish jobs quicker and faster. With this push, the pace of the project tends to overlook very important items that should be part of the process, sometimes sacrificing project quality and causing the customers or ownership to suffer. Fortunately, my past employer chose quality over quantity. If the companies can't stand behind what they believe is important, then everyone will struggle to see a good installation. I am not saying that a successful project cannot be completed in a timely manner, but does need to have a realistic

schedule that has an adequate window of work for each trade. By working with NEBB and utilizing the methods and procedures that are outlined, the task becomes more of a checked process in which items are not overlooked and passed over.

NP: Many professionals hesitate to get involved due to time constraints. What would you say to someone who's on the fence about dedicating time to NEBB?

WB: Through working with NEBB, I have found that each and every committee is looking for volunteers. I was hesitant at first, too, but have found that the number of volunteers makes a great deal of difference. The higher the number of volunteers, the more the work can be spread out, so as not to overload the individuals that try to participate. As mentioned previously, I probably have more practical experience than many of the individuals that have gone through college or trade schools. I was more or less placed into a situation of figuring things out in the field with air and hydronics so we could close out jobs and move on with a pleased customer, helping to maintain the company's reputation. While working with others in the NEBB groups, I've noted how receptive they are to what you have to offer. Everyone that can bring something to the table is recognized, so don't think or underestimate what you have to offer. It may be a perfect opportunity to get involved to help others to grow and succeed. We all have our strengths and weaknesses.

NP: What gives you hope or excitement about the next generation of NEBB professionals?

WB: In working with NEBB, I have seen some of the younger generations prove that they are very knowledgeable for their age. It has taken me years to get some of the things under my belt that I've witnessed some half my age executing, as we talk through conversations. It just goes to show working with NEBB and bouncing stuff off other NEBB Certified Professionals can take you a long way. I feel it helps us grow, collectively, to a knowledge level way above the status quo.

NP: If you could leave one message to future leaders in NEBB, what would it be?

WB: I say keep doing the things we are doing to help others in our industry recognize how NEBB has made a difference. Continuously reaching out to make our industry aware of what NEBB has to offer is very important. ●

WAR STORIES

The Evolution of TAB Instruments

By TAB Committee members

Anyone who started doing TAB work in the 70s and 80s can tell you the limits of how things could be done in the field. The instrumentation was mainly analog type devices, while tracking and keeping up with information was done by recording values on a piece of paper or document. The field technicians that performed a TAB project required everything to be documented on a mechanical drawing, and paperwork and was then brought back to the office to be typed into a report format. When faced with challenges and proper methods for testing, utilizing some of the technologies and equipment we have today was not an option. While this article will not cover all of today's equipment, it will outline what was used for different applications or methods of testing in the past as a means of

offering some of the younger generations of engineers and technicians a brief history lesson in our field.

Incline Manometers

Below is a picture of a Dwyer 10" incline manometer that can read velocities from 0 - 12,500 FPM and a 0-.25" w.c. Both meters could be used for doing traverses, as well as static pressure readings. The meter had to be set up and leveled, with the red oil confirmed level and zeroed out at the start of the readings. When determining total airflow by traverse or simple static pressure readings, two individuals were required: one to hold the pitot or static tube in the duct to obtain the reading, and the other to observe the incline and record the value. When inserting the pitot tube, one had



to be quick to prevent the red oil from being diverted to one side of the meter or possibly being drawn into the tubing, which would then require waiting for the oil to equalize. I often used this meter as a back-up when other engineers or manufacturers questioned the digital meter's accuracy. We did have to correct for temperature and elevation when required, unlike today's digital equipment with all attachments. As a side note, the 10" devices were used on dust collector systems with velocities as high as 10,000 FPM. The typical digital meters would not be able to read this high of scale and were limited in range.

Anemometers

Made in the USA, the FloRite was used as a device that would read a direct velocity without having to time the reading with a stopwatch like most anemometers. This did not spin and it would just rotate the scale to read the velocity. FloRite meters were made by Bacharach



and the one shown is a Model MRF. With a dual scale, the instrument could read either 1 - 3000 FPM, or 0 - 35 MPH. Utilizing the handle, the FloRite would be placed in the air stream or in an open area or against the face of a flat surface or register so that air flowed directly into the instrument. By pushing the handle lock to one side (chrome piece shown in picture below), the rotation is held for velocity obtained. Scale lock holds readings until lock is released. The handy chart provided would convert air velocity readings to CFM without any calculations. These air velocity meters would later be replaced with better digital technology. In the early days, this was a very popular instrument for balancing sidewall supply registers, as well as reading face velocities of chilled and hot water coils.

Analog Volt and Amp Meters

Below is a meter that was utilized in the industry decades ago. This specific meter had the ability to read both volts, amperage, and ohms. The range for volts was 0-750, amperage was 0-900, and ohms were 0-to 2k. The only part that required a battery was the attachment for ohms readings. The meter had different selections of ranges by rotating the red thumb wheel.



Temperature and Humidity Chart Recorders

The below is an older generation chart recorder (Qualimetrics, Inc) for both temperature and humidity. The scale or range for this instrument was 10 to 120 degrees F and 0-100% relative humidity. This device did not require power or batteries. The instrument would be wound like an old clock and was set in the area to monitor the surroundings. The meter has a cover that would protect the mechanical parts with a vial of ink that could be inserted into the tips in order to log the readings as the chart rotated.



Pressure Gauges

Below is a set of the original Johnson and Scott gauges. The gauges would read in feet of water only. One gauge was 0-200' and the other was a compound gauge reading -25' to positive 230'. The modern pressure gauges that are utilized in today's testing are typically digital for a larger scale and range.



Looking back at the instruments once used in the TAB industry highlights just how far technology has advanced in a relatively short time. What once required multiple technicians and was done manually with the careful handling of analog devices can now be done quickly and accurately with compact digital meters. While today's tools provide convenience and precision, it is important to appreciate the skill and patience that earlier technicians relied on to deliver reliable results with analog devices—and to know how to use them to validate digital readings if the need arises. Whether dealing with new or old instruments, the fundamentals of good testing, adjusting, and balancing remain the same: accurate measurements, attention to detail, and commitment to quality. ●



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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





Instrument Changes for the 2026 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 are changes to the Infrared Camera that is used by the BET and RCx committees, and the TAB and FHT committees have made some verbiage changes. These changes are outlined below:

Building Enclosure Testing (BET)

The BET Committee has chosen to submit new requirements for the Infrared Camera. The requirement will be less stringent in an effort to not alienate NEBB Certified Firms who have already purchased cameras before the current requirements. Additionally, this helps in reducing the barrier to entry since this can be the most expensive instrument to purchase and is only used for qualitative assessments.

Retro-Commissioning (RCx)

The Infrared Camera change also carries over to the RCx Discipline. The Commissioning Committee also agreed that their requirement for the Infrared Camera will follow the recommendation of Building Enclosure Testing Committee and adapt the same requirements for the same reasoning.

Change:

BET/RCx Instruments	Temp Documentation Thermal Camera	32 °F	to	212 °F	±	3%	or	5.5 °F	0.1 @ 86 °F	&	160 x 120
		0 °C	to	100 °C	±	3%	or	3 °C	0.1 @ 30 °F	&	160 x 120

Old 2025 Requirement:

BET/RCx Instruments	Temp Documentation Thermal Camera	-4 °F	to	450 °F	±	2%	or	3.6 °F	0.1 @ 86 °F	&	160 x 120
		-20 °C	to	232 °C	±	2%	or	2.0* °C	0.1 @ 30 °F	&	160 x 120

Fume Hood Testing (FHT)

The Fume Hood Committee has chosen to change the verbiage on the Instrument Requirement List under the "FHT Air Velocity" section. Under FHT Air Velocity, they are adding "Thermal Anemometer." This is to clarify the instrument that is required for this type of testing.

Change:

Air	Air Velocity Instrument for Pitot Traverse
	FHT Air Velocity (Thermal Anemometer)

Old 2025 Requirement:

Air	Air Velocity Instrument for Pitot Traverse
	FHT Air Velocity

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!



Testing Adjusting & Balancing (TAB)

The TAB Committee has chosen to change the verbiage on the Instrument Requirement List under the Temperature and Humidity sections. They are changing the verbiage for the Air Meter, Immersion Meter, and Humidity Meter to all read “with detachable probe.”

Change:

Temperature	Air Meter with detachable probe
	Immersion Meter with detachable probe
Humidity	Humidity Meter with detachable probe

Old 2025 Requirement:

Temperature	Air Meter with probe
	Immersion Meter with probe
Humidity	Humidity Meter (w/Probe, if req'd)

Below, you will find samples of meters with detachable probes. NEBB has zero allegiance to any one manufacturer and were given the rights to publish these sample instruments by each manufacturer. ●



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Chapter News

Michigan EBB

Aneta Torrence, Chapter Coordinator

Michigan EBB held its Annual Recertification Seminar on September 26th at the Grand Traverse Resort in Traverse City, Michigan. Thank you to everyone that participated in this event!

Wisconsin EBB

Jill Ackerman, Chapter Coordinator

Wisconsin EBB will be holding its Annual Recertification Seminar on November 11, 2025 at our home office in Wauwatosa, WI. For more information please contact Chapter Coordinator Jill Ackerman at webbchapter@nebb.org.

MidSouth EBB Chapter

Ginger D. Slaick, Chapter Coordinator

Held August 22-24 in Clear Point, AL, MidSouth EBB's Recertification Seminar & Vendor Expo brought together over 100 professionals and guests to expand knowledge, exchange insights, and spark in-

novation. Industry relevant sessions offered at the seminar included Commercial Insurance: Navigating trends, managing risk, and decoding contracts, Psychrometrics: Fundamentals and real-world applications, Project Disputes: Lessons for better positioning firms during conflict, Commissioning During Crisis: A compelling BSL-3 case study from South Korea, and Building Carbonization: A keynote lecture by ASHRAE President Dennis Knight.

The Vendor Expo remained a crowd favorite, connecting attendees to tech pioneers such as Instruments Direct, Ameritech, Retrotec, Evergreen Telemetry, TSI, and Building Start. The exchange of field challenges drove innovation for future instruments and software. MidSouth EBB deeply values its partnership with vendors and sincerely appreciates their ongoing commitment to supporting the chapter during this annual event.

MidSouth continues to expand its impact, strengthening ties with local design engineers. This event was not just a seminar to obtain CECs, but an opportunity to promote the industry and what sets us apart.

Rocky Mountain NEBB Chapter

Shandre Guy, Chapter Coordinator

Founded in 1974, the RMNEBB chapter has played a crucial role in advancing HVAC system performance, training professionals, and upholding NEBB's standards of certification and technical expertise. The mountain region's challenging altitudes and climates make precision in airflow and environmental control—something the chapter's certified firms and professionals have delivered consistently—all the more critical.

This milestone year, we recognize not just the years, but the people (engineers, technicians, and firms) committed to high standards, professional growth, and building performance.

The RMNEBB Board of Directors held the Rocky Mountain NEBB Chapter Annual Recertification Conference on September 26, 2025. Specific topics included engineering fundamentals, formulas, fan and pump laws, air systems, psychrometrics, problem-solving, and NEBB procedural standards and reporting. We hope all attendees enjoyed our Mile High hospitality!

Great Plains NEBB

Meredith Carr, Chapter Coordinator

The Great Plains NEBB annual recertification seminar took place October 3 at the Marriott Kansas City in Overland Park, KS. Entitled "Date to Design," the seminar featured topics such as Great Plains NEBB annual business meeting/NEBB updates, Cleanroom Performance Testing and Fume Hood Performance Testing, the importance of proper TAB reporting, leveraging AI for smarter testing and balance, and more. Additionally, the chapter is holding a TAB training at P1 Services Lenexa, KS location from Monday, October 20 through Thursday, October 23. ●



Marriott Kansas City at Overland Park

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Say goodbye to cumbersome setups and inaccurate readings. The Probe Guide Lock is designed to securely mount your airflow probe with precision and ease, allowing TAB professionals to work faster, easier, and safer.



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