



**NEBB
CLEANROOM PERFORMANCE TESTING SEMINAR
AUGUST 28-30, 2017**



WWW.NEBB.ORG

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SEMINAR DATES

AUGUST 28-30, 2017

SEMINAR REGISTRATION DEADLINE

AUGUST 14, 2017

OPTIONAL CPT CT & CPT CP WRITTEN EXAM DAY*

AUGUST 30, 2017

OPTIONAL CPT CP PRACTICAL EXAM DAY*

AUGUST 31, 2017

**See page 6 for complete certification details.*

LOCATION

BASS LAKE RETREAT CENTER, HOLLY SPRINGS, NC

ABOUT THIS SEMINAR AND INSTRUCTORS

About This Seminar

Cleanroom testing must be performed to ensure that cleanrooms comply with design and performance criteria. Typically done by third-party professionals, cleanroom testing identifies deficiencies and conformity to cleanroom testing standards and documents. This practice helps owners to verify system performance and ensure regulatory compliance.

NEBB cleanroom Certified Firms have required instruments to perform testing and at least one CPT Certified Professional who conducts cleanroom performance testing in accordance with the *NEBB Procedural Standards for Certified Testing Cleanrooms*.

This seminar provides practical instruction needed for this specialized discipline. Attendees will learn from professional presentations, class lessons and interactive discussions.

Learning Objectives

- Understand the *NEBB Procedural Standards for Certified Testing of Cleanrooms*
- Learn best practices for certified testing of cleanrooms in healthcare, pharmaceuticals, microelectronics and other environments
- Review critical guides, standards and codes for cleanroom testing
- Analyze case studies focusing on real-life scenarios and solutions

Who Should Attend

This seminar is intended for individuals with a minimum of two years' of cleanroom testing experience including:

- Technicians and managers
- Cleanroom operators
- Hospital facility maintenance and management personnel
- Pharmaceutical safety professionals
- Safety and biosafety professionals
- NEBB Cleanroom Certified Technicians seeking to achieve the CPT CP certification

Instructors

Patrick Law



Pat Law is founder and owner of a cleanroom certification company (HEPATEST, Inc.) with over 30 years' experience in performance testing and certifying cleanrooms. He serves as chair of the NEBB cleanroom committee and is member of the NEBB board of directors. He has taught numerous seminars and helped develop NEBB's cleanroom programs and cleanroom standards. Patrick has involved himself in other industry organizations such as IEST, ISPE and CETA.

Matthew Lemieux



Matthew Lemieux began his cleanroom career in 1981. A co-founder and president of Omni Testing, Ltd., CERTCO, Inc., and AIRGO, Inc. and a developer of cleanroom testing instrumentation, he has worked over 35 years in the cleanroom testing and air balancing industry. He holds associate degrees in electrical and mechanical engineering technology from I.T.T. Technical Institute and Northeastern University, a bachelor's degree in mechanical engineering from Northeastern University and an MA E.I.T. registration. An NSF-accredited certifier of biological safety cabinets since 1997, he is currently an R&D manager at Sullivan, Bazinet, Bongio, Inc. in Ipswich, Mass.

Dan Milholland



Dan Milholland has extensive experience in filter testing and cleanroom contamination control in the semi-conductor, aerospace, and pharmaceutical industries. He completed both his undergraduate and graduate studies at North Carolina State University where he was awarded a master's degree in biochemistry. Dan has served on various IEST working groups for over 30 years and since 1992 has been the lead instructor for "Testing HEPA Filters in Cleanrooms" for the Eagleson Institute, Sanford, Maine. He also serves on the NEBB cleanroom committee.

SEMINAR SCHEDULE AND REQUIREMENTS

Seminar Topic Overview

This seminar will include the following subjects:

- Air Velocity and Volume Testing
- Room Classification and Standards
- Room Pressurization
- Leak Testing HEPA Filters using a Photometer
- Leak Testing HEPA Filters using a Particle Counter
- Optional Secondary Cleanroom Tests
- Cleanroom Protocol and cGMP
- Report Review
- SOP and SOP Generation
- Safety Program
- Instrument Calibration Program
- Technician Training

Seminar Requirements

Attendees are expected to bring standards with them for use during the seminar. Standards will not be provided at the seminar and sharing between attendees during exams will not be allowed.

Recommended Reference Material for the Seminar and Those Taking Exams

CPT CP and CT Candidates are encouraged to purchase and use the following reference material during the seminar and for their exams.

- *NEBB Procedural Standard for Certified Testing of Cleanrooms* (available through www.nebb.org)
- *Cleanroom Performance Testing Home Study Course* (available through www.nebb.org)
- CPT Seminar Presentation Handouts and Notes
- *IEST RP 034*
- *IEST RP 006*
- *ISO 14644-1*
- *ISO 14644-3*
- *Aseptic Processing Guidance (FDA)*
- *EU Guideline Annex 1*

The use of laptop computers and any personal spreadsheets for cleanroom calculations will be allowed during the NEBB Professional practical examination.

Attendees and their company sponsors, will be required to sign a “Hold Harmless” statement indemnifying NEBB, NEBB employees, seminar instructors and the training facility of any and all losses associated with seminar participation.

Schedule

Monday, August 28	8:00 am – 5:00 pm Lunch Break	Instruction
Tuesday, August 29	8:00 am – 5:00 pm Lunch Break	Instruction
Wednesday, August 30	8 am – Noon 1:00 pm – 5:00 pm <i>There will be no break during the afternoon exam day.</i>	Instruction, Questions and Answers Optional CPT CP & CPT CT Written Exam: General Knowledge <i>Separate Registration Required. See page 7 for complete certification application process and exam information.</i>
Thursday, August 31	8:00 am – 1:00 pm <i>There will be no break on exam day.</i>	Optional CPT CP Practical Exam <i>Separate Registration Required. See page 7 for complete certification application process and exam information.</i>

IMPORTANT REMINDERS

1. **Seminar registration deadline is Monday, August 14, 2017.**
2. Enrollment is limited. Registrations will be filled on a “first come, first served” basis.
3. Seminar fees includes course instruction, lunch, and morning and afternoon breaks.
4. Seminar fees do not include anything pertaining to certification.
5. Registrants will receive a confirmation email, including instructions regarding required seminar materials.
6. Questions? Call 301.977.3698 or email training@nebb.org.

This CPT seminar has been awarded 16.75 continuing education credits (CECs) from NEBB.

HOTEL, TRANSPORTATION AND IMPORTANT DATES AND TIMES

Important Dates and Times

Seminar Location:

Bass Lake Retreat Center
900 Bass Lake Road
Holly Springs, NC 27540

Arrival in Holly Springs, NC: Sunday, August 27, 2017

Seminar Dates: Monday-Tuesday, August 28-29, 2017

Wednesday morning, August 30, 2017

Optional CPT CP & CT Written Exam: Wednesday,
August 30, 2017, 1:00 pm-5:00 pm

Optional CPT CP Written Practical Exam:
Thursday, August 31, 2017, 8:00 am-1:00 pm

Airport

The closest airport is Raleigh-Durham International Airport (RDU). The training facility is 25 miles from the airport. Please allow 2.5 hours travel time to the airport for car return, check in, security, boarding, etc.



Hotel

Attendees are to make reservations directly with the hotel of their choice. Below is a short list of hotels in close proximity to the training center. Please refer to the seminar schedule prior to booking travel.

- Hampton Inn & Suites, 1516 Ralph Stephens Road, Holly Springs, NC, 27540; 919.552.7610. This hotel is approximately five miles from the training center.
- Comfort Inn Apex, 1411 East Williams St., Apex, NC 27539, 1.800.881.1523. This hotel is approximately seven miles from the training center.

NEBB AUGUST 2017 CPT SEMINAR REGISTRATION FORM

1. Pre-registration and payment of fees are necessary to ensure your participation in the seminar.
2. **Seminar registration form and payment must reach the NEBB Office by Monday, August 14, 2017.**
3. **Mail:** NEBB, 8575 Grovemont Circle, Gaithersburg, Maryland 20877-4121
4. **Phone:** 301.977.3698 **Fax:** 301.977.9589 **Email:** training@nebb.org

Name _____ Date _____

Company _____

Address _____

City, State, ZIP _____

Phone / Cell _____ Fax _____

Email _____ Chapter _____

Please list any dietary restrictions _____

Seminar Fee (Check all that apply)

\$1200 Seminar Registration Fee for Monday-Wednesday morning (See page 6 for complete CPT CP certification details.)

Publication Fees

\$60/\$110* NEBB Procedural Standards for Certified Testing of Cleanrooms *NEBB/non-NEBB

\$600/700* NEBB Study Course for CPT Certified Testing of Cleanrooms *NEBB/non-NEBB)

**Prices for publications include shipping and handling. International shipping rates are additional.*

_____ **\$ Total Amount Paid**

Payment Method

Check Enclosed made payable to NEBB

Visa MasterCard American Express

Name on Card _____

CC Number _____

Expiration Date _____

Security code _____

Signature _____

Cancellation Policy

Cancellation by registrants, before August 14, 2017, regardless of reason, will be subject to a \$250 service charge to cover NEBB's expenses. A refund of the prepaid registration will be made less the \$250 service charge. All publication sales are final.

No shows or late cancellations (those persons registered for the seminar who do not cancel 14 days prior to the seminar and subsequently do not attend the course) will forfeit the entire registration fee unless a replacement can be found.

NEBB reserves the right to cancel any seminars having insufficient registrants, in which case, all prepaid registration will be refunded in full. NEBB is not responsible for any losses resulting from cancellation of a seminar.

Please advise NEBB and your hotel of your cancellation as soon as possible.

CERTIFICATION AND EXAM PROCESS: A STEPPED APPROACH

Professionals who desire to achieve the CPT CP or CPT CT certification and who want to sit for the two exams after the CPT seminar on August 30-31, 2017 are required to be in compliance with and complete all certification requirements and processes BEFORE attending the seminar.

The certification process must be started well in advance.

1. CPT CP and CPT CT certification requirements are available in the *NEBB Comprehensive Certification Handbook* available at www.nebb.org, or email certification@nebb.org.
2. To obtain CPT CP or the CPT CT certification and exam information, please email certification@nebb.org.
3. **Deadline for receipt of CPT CP or CPT CT Applications for Candidacy: July 31, 2017. Last-minute applications or walk-ins to the exam will not be accepted.**
4. Pre-requisites must be met and the CPT CP or CPT CT Applications for Candidacy must be submitted for approval and the certification application fees paid. **Once approved, the Candidate will receive payment information for the CPT CP or CPT CT paper-based written exam.**
5. **CPT CT and CPT CP Certification Fees**

Application for Candidacy fees and exam fees are separate from the training seminar fees, publications or any training-related items. All exam-related fees are final but can be transferrable. Below is a listing of applicable CPT CT and CPT CP certification fees.

Contact certification@nebb.org for more information or applications.

Cleanroom Performance Testing Certified Technician

CPT CT Application for Candidacy Fee: \$50
CPT CT Exam Fee: \$440.00
CPT CT Application for Certification fee: \$25
CPT CT Certificate Fee: \$30

Cleanroom Performance Testing Certified Professional

CPT CP Application for Candidacy Fee: \$100
CPT CP General Knowledge Exam Fee: \$340
CPT CP Practical Exam Fee: \$800.00
CPT CP Application for Certification fee: \$50
CPT CT Certificate Fee: \$30

6. Because a Candidate's exam results are entered into Kryterion, NEBB's online exam processing center, Candidates must set up a profile on Kryterion in advance of sitting for the CPT CP or CPT CT written exam. **Instructions on the process will be sent.**

7. Those who wish to sit for the CPT CP or CPT CT exams, must have all facets of the certification process completed prior to attending the CPT seminar.

8. CPT CP Exams

The CPT CP has two exams that test the knowledge, engineering application and field testing skills required to properly manage cleanroom testing projects.

Exam 1: General Knowledge exam (up to 2 hours)

The written exam is a multiple choice format and has several questions that require calculations. The exam covers:

- Establishing test criteria based on a given scope
- Knowledge of Standards
- SOP Requirements
- Safety Requirements
- Primary Tests
- Secondary Tests

Exam 2: CPT CP Practical Exam (up to 5 hours)

The practical exam focuses on the following:

- Entering in raw data (provided) and calculating results
- Verification that all testing conforms to the SOP provided
- Confirming the validity of data provided
- Identification of errors
- Conformance to industry standards referenced in the SOP provided

9. CPT CT Written Exam

- Is an "open book" exam.
- Consists of 100 multiple choice questions.
- Can take up to four hours to complete.
- All questions are designed to test recall skills and the Candidate's ability to apply knowledge, interpret data, and solve problems.
- Exams and certification program information documents are developed based on practice in the U.S. and are offered only in English.
- Calculations and formulas are in the Imperial Standard units.

10. Success with certification comes with dedicated self-study and preparation. CPT CP Candidates are encouraged to purchase and use the reference material listed on page 3 for their at-home studying in preparation for exams.

Reminder

The CPT seminar focuses on cleanroom performance testing and requires a sufficient amount of field experience. Attending the seminar without this experience is insufficient for successful completion of NEBB CPT CP exam.