

Retro Commissioning for Existing Buildings (RCx)

September 19 - 21, 2022

Gaithersburg, MD

Location:

NEBB TEC

8575 Grovemont Circle

Gaithersburg, MD 20877

This Seminar is Designed for:

- Professionals looking to enhance their knowledge of Technical Retro-Commissioning
- Architects, engineers, mechanical contractors, building commissioning agents
- Building owners, operators, and facility maintenance/management personnel
- Building facility, building auditors and safety professionals
- Energy auditors
- Professionals desiring to obtain the NEBB Retro Commissioning (RCx CP) certification.

Registration Deadline:

August 19, 2022





Our COVID-19 Response Plan

Considering of COVID-19, NEBB has taken several proactive steps to help ensure the health and safety of our attendees and instructors. Precautions such as constant sanitization of the seminar area, increased attention to high-touch areas in the rooms, limits on the number of attendees during the seminar and protective gear for our Instructors and are in place. NEBB also will be practicing social distancing and maintaining 6 feet apart.

Responsibilities for Each Attendee:

- If you are experiencing any symptoms of COVID-19 like running a fever, coughing or shortness of breath, please do not attend the seminar.
- You have been exposed to someone who has tested positive for COVID-19 in the last 14 days.
- You have a compromised immune system or are considered “high risk.”
- Masks are required during the seminar and gloves can be worn if desired.
- Sanitize hands prior to entering seminar location.
- Avoid shaking hands or engaging in any unnecessary physical contact.
- Signing a waiver prior to the seminar.





Seminar Instructors:



Bill Kinser

Bill Kinser is the President and CEO of ES2 a building automation, Cx, and TAB company. He is a registered professional engineer who provided mechanical design build services. Bill has held multiple NEBB certifications for over 20 years. His entire 32-year career has been in commercial construction and the HVAC industry.



Steve Wiggins

Steve Wiggins is an Associate Partner at Newcomb & Boyd. He is the past President of NEBB and former Chairman of NEBB's BSC Committee. He has more than 30 years of experience in Building Systems Commissioning. He has been working in the built environment since 1975. Steve owned a mechanical and electrical company for eight years. After that he worked for the United States Air Force at base level and headquarters AFCEA as the commissioning and retro-commissioning expert. He has master mechanical and electrical contractor licenses and is a co-author of NEBB's Design Phase Commissioning Handbook.





About This Seminar:

The introduction of ANSI/NEBB S120-2019, Third Edition along with the enhanced Technical Retro-Commissioning (RCx) program, has allowed NEBB to produce a significant business opportunity for contractors, TAB professionals, engineering and commissioning firms providing corrective action for under-performing buildings, improving indoor environment and comfort, and optimizing energy usage for aging facilities.

Technical RCx-EB is the technical process of improving building systems by inspecting, testing, analyzing, calibrating, repairing, adjusting, and optimizing building systems. The RCx process allows for the training of operators for improving building performance covering such items as: building systems, energy-utilizing equipment, and operating schedules as well as optimization of these elements for maximum efficiency. The seminar will cover the main content domains in the RCx-EB Body of Knowledge (included in the RCx-EB CP Candidate Handbook Appendix).

Learning Objectives

- Project Acquisition /Contract Process
- Project Development and Records and Documents
- System Assessment / Discovery
- Performance Verification / Troubleshooting
- Analysis / System Optimization
- Continuous Performance Tracking
- Overview of the NEBB Technical Retro Commissioning Program
- Introduction to the Technical Retro Commissioning Process
- Investigation Process Best Practices
- Activities within the Analysis and Recommendation Phases
- Energy Calculations





Seminar Schedule:

If you are interested in certification and/or taking the exam, please contact certification@nebb.org

Monday, September 19, 2022

(7 CECs)

7:30 am: Registration

8:00 am – 5:00 pm: Procedural Standards & Retro-Commissioning Process, Retro-Commissioning Process of Discovery.

(Lunch Provided)

Tuesday, September 20, 2022

(7 CECs)

8:00 am – 5:00 pm: Retro-Commissioning Process & Evaluation Findings, Retro-Commissioning Process & Energy Calculations

(Lunch Provided)

Wednesday, September 21, 2022

(7 CECs)

8:00 am – 5:00 pm: Retro-Commissioning Process & Corrective Actions and System Optimization, Q&A

(Lunch Provided)

Thursday, September 22, 2022

Optional Exam Day



Travel Information:

We recommend all attendees that are unfamiliar with the seminar location or require travel from another location review the following information prior to registering for this seminar.

Hotels:

Attendees can reservations directly with the hotel of their choice. Below is a short list of hotels in close proximity to the training center. Hotel and transportation costs are not covered by the seminar registration fee.

Homewood Suites Gaithersburg

805 Russell Ave
Gaithersburg, MD 20879
301-670-0008

[Booking Link](#)

Hilton Garden Inn & Homewood Suites by Hilton Rockville, MD

14975 Shady Grove Rd
Rockville, MD 20850
240-507-1900

[Booking Link](#)

Airport:

Three airports service the Maryland/Washington Metropolitan area:

Ronald Reagan Washington National Airport

(DCA): 30 miles from facility; 37 minutes average drive time; \$80 average taxi fare.

Dulles International Airport (IAD):

33 miles from facility; 34 minutes average drive time; \$80 average taxi fare.

Baltimore/Washington International Airport

(BWI): 40 miles from facility; 44 minutes average drive time; \$100 average taxi fare.

Important Dates and Times:

Arrival in Gaithersburg, MD

Sunday, September 18, 2022

Seminar Dates:

Monday-Wednesday, September 19 -21, 2022

Optional Exam

Thursday, September 22, 2022

Seminar Location:

NEBB TEC

8575 Grovemont Circle
Gaithersburg, MD 20877



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NEBB SEPTEMBER RCx SEMINAR REGISTRATION FORM

Registration form and payment must reach the NEBB office on or before August 19, 2022.

Pre-registration and payment of fees are necessary to ensure your participation in the seminar.

Three ways to register:

- 1. Online through the [Certelligence Portal](#)
- 2. Email this form to training@nebb.org, or
- 3. Mail this form to: NEBB, 8575 Grovemont Circle, Gaithersburg, MD 20877.

Name: _____

Date: _____

Company: _____

Address: _____

City, State, Zip: _____

Phone/Cell: _____

Fax: _____

Email: _____

Chapter: _____

Please list any dietary restrictions:

Seminar Fees (Check all that apply)

\$1500 RCx Seminar Registration Fee

\$ _____ Total Amount Paid

Publication Fees

\$125 ANSI/NEBB S110-2019, Second Edition Whole Building Technical Commissioning of New Construction (hard copy or electronic)

\$125 ANSI/NEBB S120-2019, Third Edition Technical Retro-Commissioning of Existing Buildings (Hard copy or electronic)

\$150 NEBB/ \$200 Non-NEBB Handbook for Energy & Water Calculations, includes CD with Energy Calculations

Payment Method

Check enclosed made payable to NEBB

Visa MasterCard American Express

Name on Card _____

CC Number _____

Expiration Date _____

Security Code _____

Signature _____

**Prices for publications do not include shipping and handling*

Cancellation Policy: Cancellation by registrants, 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. No Shows or late cancellations (those who registered for the seminar who do not cancel at least 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 fees will be refunded in full. Please advise NEBB and your hotel of your cancellation as soon as possible.





Seminar Attendee Requirements:

To achieve the best educational experience, attendees are asked to read the following BEFORE attending the training seminar. It is assumed that all attendees have a thorough working knowledge of the requirements of these NEBB publications prior to attending the seminar.

- Attendees must have a working knowledge of the ANSI/NEBB S120-2019, Third Edition Technical Retro-Commissioning of Existing Buildings (available for purchase on nebb.org).
- Attendees must be familiar with the NEBB Energy Calculation Handbook (with CD) (available for purchase on nebb.org).
- Knowledge of the RCx-EB Candidate Handbook
- Attendees are required to bring a laptop with Windows operating system, Adobe Acrobat, Microsoft Word and Microsoft Excel.
- Working knowledge of the software prior to attending the seminar.

Important Reminders:

1. Registrations will be filled on a “first come-first served” basis.
2. Seminar fees include course instruction, lunch, am/pm breaks.
3. **Seminar fees do not include anything pertaining to certification. For information on certification or exams please contact certification@nebb.org.**

Recommended Publications:

To achieve the best learning results, it is highly recommended that attendees **read the following publications BEFORE** attending the seminar:

- ANSI/NEBB S120-2019, Third Edition Technical Retro-Commissioning of Existing Buildings
- NEBB Energy Calculation Handbook (with CD)
- [Honeywell Engineering Manual of Automatic Control of Commercial Buildings \(free download\)](#)

Instructor assumes that all attendees have a thorough working knowledge of the requirements of these NEBB publications prior to attending the seminar. Publications can be purchased online at www.nebb.org.

Questions About This Seminar?

Call 301-977-3698 or email training@nebb.org

