Retro-Commissioning For Existing Buildings (RCx) Seminar

August 12 -14, 2024

This Seminar is Designed For

· Professionals looking to enhance their knowledge of Technical Retro-Commissioning

 \cdot Architects, engineers, mechanical contractors, building commissioning agents

 \cdot Building owners, operators, and facility maintenance/ management personnel

 \cdot Building facility, building auditors and safety professionals

 \cdot Energy auditors

 \cdot Professionals desiring to obtain the NEBB Retro Commissioning certification

Location: Robert B. Gawne NEBB Training and Education Center 8575 Grovemont Circle Gaithersburg, MD 20877

Registration Deadline: July 12, 2024



Seminar Instructors:



Steve Wiggins



Bill Kinser

Steve Wiggins is an Associate Partner at Newcomb & Boyd. He part of the NEBB Cx 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 the base level and headquarters AFCESA as the commissioning and retro-commissioning expert. He has a master Mechanical Electrical Contractor license and is a co-author of NEBB's Design Phase Commissioning Handbook.

Bill Kinser is the President and CEO of ES2 a building automation, Cx, and TAB Company. He is a registered professional engineer who provides 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.

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 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-utlizing equipment, and operation schedules as well as optimization of these elements for maximum efficiency. The seminar will cover the main content domains in the RCx Body of Knowledge (included in the RCx 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 Commmissioning Program
- Introduction to the Technical Retro Commissioning Process
- Investigation Process Best Practices
- Acitivites within the Analysis and Reccommendation Phases
- Energy Calculations



This Seminar has been approved for 21.00 Continued Education Credits

Monday, August 12, 2024

(7 CECs)

7:30 am: Registration 8:00 am – 5:00 pm: Procedural Stnadards & Retro-Commissioning Process, Retro-Commissioning Process of Dsicovery (Lunch Provided)

Tuesday, August 13, 2024 (7 CECs)

8:00 am - 5:00 pm: Retro-Commissioning Process & Evaluation Findings, Retro-COmmissioning Process & Energy Calculations (Lunch provided)

Wednesday, August 14, 2024 (7 CECs)

8:00 am - 5:00 pm: Retro-Commissioning Process & Corrective Actions and System Optimization, Q&A (Lunch provided)

Thursday, August 15, 2024

Optional Exam



Travel information:

Registration form and payment must reach the NEBB office on or before July 12, 2024. Pre-registration and payment of fees are necessary to ensure your participation in the seminar.

Hotels:

Attendees can make 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, MC

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

Airport:

Ronald Reagan Washington National Airport (DCA): 30 miles from the facility, 37 minutes average drive time; \$80 average taxi fare.

Dulles International Airport (IAD): 33 miles from the facility, 34 minutes average drive time; \$80 average taxi fare.

Baltimore/ Washington International Airport

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

Important Dates and Times:

Arrival in Gaithersburg, MD Sunday, August 11, 2024

Seminar Dates: Monday - Wednesday, August 12 - 14, 2024

Optional RCx CP Paper-based Exams Thursday, August 15,, 2024

Seminar Location:

The Robert B. Gawne NEBB Training and Education Center 8575 Grovemont Circle Gaithersburg, MD 20877

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Registration form and payment must reach the NEBB office on or before July 12, 2024.

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Registration form and payment

- 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:	Optional Exam Opportunity:
City, State, Zip:	Please check the box below. If interested, please email <u>certification@nebb.org</u> for the candidacy application process. Pre-approval and payment are required before the deadline.
Phone/Cell:	
Email:	
Please list any dietary restrictions and or ADA accommodations:	Yes, interested in taking the exam
Seminar Fees (Check all that apply)	No, not interested in taking the exam
\$1500 Seminar Registration Fee (Does not include candidacy application or exam fees)	Payment Method
Publication Fees	Check enclosed made payable to NEBB
\$125 ANSI/NEBB \$110-2019, Second Edition	Visa MasterCard American Express
WholeBuilding Technical Commissioning of New	Name on Card
\$125 ANSI/NEBB S120-2019, Third Edition	 CC Number
TechnicalRetro-Commissioning of Existing	Expiration Date
Buildings (Hard copy or electronic)	Security Code
\$150 NEBB/ \$200 Non-NEBB Handbook for	Signature
Energy & Water Calculations, includes CD with	
Energy Calculations	\$Total Amount Due
*Prices for publications do not include shipping and handling.	Note: Any candidacy or exam fees will be invoiced separately.

Location

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.

Attendee and Seminar 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 Education Technical Retro-Commissioning of Existing Buildings

Attendees must be familiar with the NEBB ENergy Calculation Handbook (With CD)

·Knowledge of the RCx Candidate Handbook

Attendees are required to bring a laptop with Windows operating systems, Adobe Acrobat, Microsoft Word and Microsoft Excel

Working knowledge of the software prior to attending the seminar

Recommended Publications:

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

ANSI/ NEBB S210 - 2019, Third Edition: Technical Retro-Commissioning of Existing Buildings
NEBB Energy Calculation Handbook (With CD)
Honey Engineering Manual of Automatic Control of Commerical Buildings (free download)

The instructor assumes that all attendees have a thorough working knowledge of the requirements of those NEBB publications prior to attending the seminar. Publications can be purchased online at <u>www.nebb.org</u>

Important Reminders:

1. Registrations will be filled on a "first come-first served" basis. Please note that class sizes are limited due to Covid Social Distancing Protocol.

2. Seminar fees include course instruction, lunch, am/pm breaks.

3. Seminar fees do not include anything pertaining to certification. 4. For information on certification or exams please contact certification@nebb.org.



Questions About This Seminar? Call 301-977-3698 or email training@nebb.org

Our COVID-19 Response Plan

Considering 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 are in place. NEBB also will be practicing social distancing and maintaining 6 feet apart.

Our COVID-19 Response Plan

• 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."
- Wearing a mask is requested during the seminar and gloves can be worn if desired.
- Sanitize hands prior to entering the seminar location.
- Avoid shaking hands or engaging in any unnecessary physical contact.
- Signing a waiver prior to the seminar

