Retro Commissioning for Existing Buildings (RCx)

August 12-15, 2025

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

Location

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



August, 12-15 2025



Steve Wiggins

Mr. Wiggins has over 45 years of experience in optimizing building operations. His work has involved commissioning, retrocommissioning, and operations and training activities on educational, research, cultural, health care, and corporate projects. Mr. Wiggins has been responsible for more than 400 projects for over 30,000,000 square feet of facilities. Widely published and a sought-after speaker, he often teaches certification seminars for commissioning and retrocommissioning professionals. Whether a complex facility on a health care campus, in academia or private industry, or on a military base, Mr. Wiggins has expertise in making buildings perform at their best.



Jim Bochat

James Bochat has been involved in the Arizona Engineering and Construction industry for over forty years. His experience includes Mechanical Design, Mechanical Construction, Controls, Test & Balance, Commissioning, Retro Commissioning and On-Going Commissioning. He is a former President of the National Environmental Balance Bureau (NEBB) organization and has been instrumental in developing and teaching commissioning standards for NEBB. He has been involved with ASHRAE serving as chair of the Professional Development Committee and the PMP Best Practices Committee, and voting member of other ASHRAE committees.

KFI-Engineers is an Engineering Design and Commissioning consulting firm providing MEP Engineering, Commissioning, Retro Commissioning and On-Going Commissioning and building testing services to Facility Owners.



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



Tuesday, August 12, 2025 (7 CECs)

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

Wednesday, August 13, 2025 (7 CECs)

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

Thursday, August 14, 2025 (7 CECs)

8:00 am - 5:00 pm: Retro-Commissioning Process & Corrective Actions and System Optimization (Lunch Provided)

Friday, August 15, 2025 (7 CECs)

8:00 am - 5:00 pm: Owner/Operator Training, Marketing Retro-Commissioning Services, Retro-Commissioning Seminar Review, Q&A (Lunch Provided)

Saturday, August 16, 2025

Optional Exam Day

8:00 am - 12:00 pm: RCx Technical Exam 1:00 pm - 4:00 pm: RCx Procedural Exam (Lunch NOT Provided)



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 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 <u>Booking Link</u>

Hilton Garden Inn & Homewood Suites by Hilton

14975 Shady Grove Rd Rockville, MD 20850 240-507-1800 <u>Booking Link</u>

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 Monday, August 11, 2025

Seminar Dates: Tuesday-Friday, June 12-15, 2025

Optional RCx Paper-based Exams Saturday, August 16, 2025

Seminar Location:

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

NEBB August RCx SEMINAR REGISTRATION

Registration and payment must be submitted on or before July 12, 2025.

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

Register Online

- 1. Log into your <u>Certelligence</u> portal
- 2. Scroll down to "My Events"
- 3. Select your desired seminar and complete the registration

Seminar Fees

\$2000 RCx Seminar Registration Fee (Does not include candidacy application or exam fees)

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

Optional Exam Opportunity

If you are interested in testing after the seminar, please email certification@nebb.org for the candidacy application material. **Pre-approval and payment are required before June 27th**.

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.

Attendee and Seminar Requirements:

Recommended Publications:

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.
- <u>Honeywell Engineering Manual of Automatic Control of Commercial Buildings (free</u> <u>download)</u>

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 www.nebb.org

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.



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.

• We ask that you

- 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

• Please stay home 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"

