

NEBB Technical Retro-Commissioning Certified Professional Seminar and Exam



**April 20-22, 2015
Honolulu, Hawaii**

***Optional Exam on April 23, 2015**



INTRODUCTION

Retro-Commissioning (RCx) is a significant business opportunity for contractors, TAB professionals, Engineering and Commissioning firms correcting under-performing buildings, improving indoor environment and comfort, and optimizing energy usage for aging facilities. Technical Retro-Commissioning of building systems drives deep, lasting energy savings for owners and managers of existing buildings by taking a holistic approach to energy efficiency. It covers building systems, energy-using equipment, operating schedules, and optimizes how these elements perform together.

LEARNING OBJECTIVES

The three day seminar provides attendees with an overview of Retro-Commissioning concepts including:

- Overview of the NEBB Technical Retro-Commissioning Program
- Introduction to the Technical Retro-Commissioning Process
- Investigation Process Best Practice
- Activities within the Analysis and Recommendation Phase
- Energy Calculations
- Marketing Retro-Commissioning Services

WHO SHOULD ATTEND

- Professionals looking to become familiar with 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 NEBB Retro-Commissioning certification— Technicians and managers experienced in Retro-Commissioning.



SEMINAR SCHEDULE

Monday, April 20	7:30 AM—8:00 AM	Registration
	8:00 AM - 12:00 PM	Procedural Standards and Retro-Commissioning Process
	1:00 PM—5:00 PM	Retro-Commissioning Process of Discovery
Tuesday, April 21	8:00 AM - 12:00 PM	Retro-Commissioning Process and Evaluation Findings
	1:00 PM—5:00 PM	Retro-Commissioning Process and Energy Calculations
Wednesday, April 22	8:00 AM - 5:00 PM	Retro-Commissioning Process and Corrective Actions
Thursday, April 23	8:00 AM—2:00 PM	Retro-Commissioning Certification Written Exam

INSTRUCTORS (preliminary—subject to change):



Jim Bochat

Jim Bochat Jim Bochat President of Commissioning Concepts 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 and Retro Commissioning. Jim is a former NEBB President. He is a Life Member of ASHRAE and serves on the GPC-02, GL1.2, and PDC committees.

Jim is a frequent lecturer who has presented commissioning topics for numerous organizations and events, including Greenbuild, ASHRAE, AHR Expo, PECEI, NEBB, SMARCA, IFMA, South-west Plant Engineers, RMA Chapter of APPA, Western Area Power Users, and AMCA of Australia regarding Commissioning.



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.

Prior to that he worked for the United States Air Force at base level and headquarters AFCESA as the commissioning and retro-commissioning expert. He has master mechanical and electrical contractor licenses. He is a co-

STUDENT PREPARATION PRIOR TO THE SEMINAR

All seminar participants need to have working knowledge of the NEBB *Procedural Standards for Retro-Commissioning of Existing Buildings*. Participants should also be familiar with the *NEBB Design Phase Commissioning Handbook for HVAC Systems* before attending the seminar. CP candidates are advised that this seminar, by itself, is not sufficient to fully prepare for the CP exams. Instruction is based on the assumption that all attendees have a thorough working knowledge of the requirements of these NEBB publications prior to attending the course. Students are required to bring a laptop with Windows operating system, Adobe Acrobat, Microsoft Word and Microsoft Excel and should be familiar with the software prior to attending the seminar.

NEBB RETRO-COMMISSIONING CERTIFICATION REQUIREMENTS

NEBB offers Retro-Commissioning certification to firms and individuals. All certification requirements are available on the NEBB website at http://www.nebb.org/certified/retrocommissioning_certification_requirements.

***Attendees should be aware that this seminar is a refresher on NEBB Retro-Commissioning. Attending the seminar in itself is insufficient for successful completion of NEBB RCx Certified Professional exam. Please note that you need to apply for certification before you can take the NEBB RCx Certification Exam. Contact the NEBB Office for the application.**



***Please note there is a discount of \$300 on registration fees when you register for both the NEBB RCx Seminar and the 2015 NEBB Annual Conference! Visit www.nebb.org for 2015 NEBB Annual Conference registration.**

FEES

See the registration form for applicable fees. Registration fees DO NOT cover travel or accommodation expenses. NEBB will provide refreshments and lunch each day.

REGISTRATION

Registrations are due by Friday, January 30, 2015.

Please contact Connie Vitale at 301-977-3698 to confirm that space is available prior to purchasing airline tickets, or committing to other expenses. Registrants will receive a confirmation letter, including instructions regarding required seminar materials.

HOTEL INFORMATION

Hyatt Regency Waikiki Beach Resort and Spa

2424 Kalakaua Avenue

Honolulu, Hawaii, USA, 96815-3289

Tel: +1.808.923.1234

Fax: +1.808.926.3415

Website: <http://waikiki.hyatt.com/>

To secure a room please use the [reservation link](#) or call the hotel on +1.888.421.1442.



The standard room (Waikiki View Room) single/double rate for the conference is \$215 plus applicable taxes (13.96%). A daily resort fee of \$10 plus tax provides the following services and amenities.

- (2) bottles of water daily
- Wi-Fi internet in guest rooms
- Complimentary amenities - in-room safe, local phone calls, 1-800 calls, international call (up to 60 minutes) per stay, local newspaper (Monday- Friday) pick up from front desk, incoming faxes, health club access

TRANSPORTATION INFORMATION

Airport: Honolulu International Airport (HNL)

Ground Transportation: Approximate taxi fare from airport to Hyatt Regency Waikiki Beach Resort & Spa is \$60.

Airport Shuttle: The Robert Hawaii Shuttle Service is available for transportation to and from the airport. They run 24 hours a day, 7 days a week. For more information call 1.800.831.5541.

NEBB Technical Retro-Commissioning Seminar and Exam Registration

I will attend the NEBB's Technical Retro-Commissioning Seminar, April 20-22, 2015

Name: _____ Nickname: _____
Company Name: _____ Title: _____
Address: _____
City: _____ State: _____ Zip: _____ Chapter: _____
Phone: _____ Fax: _____ Dietary Restriction: _____
Email: _____

Fees (check all that apply)

- \$1,150.00 REGISTRATION FEE (for NEBB Certified Firms)
 \$1,350.00 REGISTRATION FEE (for non-NEBB Firms)
 \$250 Retest Fee
 \$125.00 NEBB Design Phase Commissioning Manual/CD (Required Text)
 \$150.00 NEBB Design Phase Commissioning Manual/CD (HARDCOPY for non NEBB firms; Required Text)
 Add \$10 shipping for CD. \$14 for Hardcover
 \$1,700 (combined registration fee for NEBB RCx Seminar and 2015 NEBB Annual Conference (for NEBB Firms)
 \$1,900 (combined registration fee for NEBB RCx Seminar and 2015 NEBB Annual Conference (for non-NEBB Firms)

\$ _____ TOTAL AMOUNT (Please call NEBB for International Shipping Charges)

Payment method

- Check Enclosed made payable to NEBB for Seminar Registration Fee
 VISA MASTERCARD AMERICAN EXPRESS

Name on the Card _____
Credit Card Number _____ Expiration _____
Security Code _____ Signature _____

Form & check must reach the NEBB Office no later than Friday, January 30, 2015. RETURN TO:

Connie Vitale, connie@nebb.org | NEBB | 8575 Grovemont Circle, Gaithersburg, Maryland 20877-4121

Conditions

- Pre-registration and pre-payment of fees are necessary to ensure your participation in the seminar.
- 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 and examination fees 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 30 days prior to the seminar and subsequently do not attend the course) will forfeit the entire registration fee and examination fee unless a replacement can be found.
- NEBB reserves the right to cancel any seminars having insufficient registrants, in which case, all prepaid registration and examination fees will be refunded in full.
- NEBB cannot be responsible for any losses resulting from cancellation of a seminar.

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NEBB®

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