

# FORM CF-RCx | CHAPTER RECOMMENDATION FOR FIRM CERTIFICATION IN TECHNICAL RETRO-COMMISSIONING OF EXISTING BUILDING SYSTEMS



FIRM

Firm Name: \_\_\_\_\_

Street Address: \_\_\_\_\_

\_\_\_\_\_

City	State	Country	Zip/Postal Code
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Phone: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_ Website Address: \_\_\_\_\_

CERTIFIED PROFESSIONAL

Designated CP Name: \_\_\_\_\_ Certification Number: \_\_\_\_\_

Street Address: \_\_\_\_\_

\_\_\_\_\_

City	State	Country	Zip/Postal Code
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Phone: \_\_\_\_\_ Email Address: \_\_\_\_\_

Date submitted to Chapter for review: \_\_\_\_\_

NEBB Chapter: \_\_\_\_\_

**The Chapter has verified that the Firm:**

- |   |   |
|---|---|
| <input type="checkbox"/> Has maintained a reputation for responsible performance    | <input type="checkbox"/> Has paid applicable fee                    |
| <input type="checkbox"/> Possess the current edition of the RCx Procedural Standard | <input type="checkbox"/> Is in good standing with the local chapter |

**This recommendation is submitted on behalf of the Chapter Board of Directors by:**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(Chapter Technical Committee Chairman)

Print Name: \_\_\_\_\_

**FOR NEBB USE ONLY**

Date Received: \_\_\_\_\_ Date Shipped: \_\_\_\_\_

Notes: \_\_\_\_\_ Firm Cert: \_\_\_\_\_





# NEBB CODE OF BUSINESS ETHICS

*This form needs to be completed by an Authorized Representative of the Firm **and** the Designated Certified Professional*

Each NEBB Certified Firm and designated NEBB Certified Professional shall not act in any manner that detracts from the reputation of NEBB for certifying Firms and certifying Professionals who provide quality service, in accordance with NEBB Standards, in a timely and professional manner or in any other such manner that is, likewise, not in the best interest of NEBB.

The designated NEBB Certified Professional shall ensure that the NEBB Certified Firm only performs work, which that person can adequately supervise, and the designated NEBB Certified Professional must have the authority to manage all aspects of a Firm’s work, ensure quality work is performed on a timely basis.

- I. NEBB Certified Firms and the designated NEBB Certified Professional shall:
  - a. perform their work in accordance with the current NEBB Procedural Standards.
  - b. prepare details reports, which are accurate and reliable and which are prepared under the direct supervision of a NEBB Certified Professional and in accordance with the appropriate and current NEBB Procedural Standards
  - c. report all equipment and system deficiencies, which prevent them from completing their work and preparing a final report, specifically and expressly noting in any preliminary report that it is preliminary and not final and not sealing any such report
  - d. report and address problems, if encountered, and when a problem exists, notify appropriate project personnel by providing input as to the cause of the problem and recommend possible solutions
  - e. perform their services professionally and with respect for the client’s property and personnel
  
- II. Certification of a NEBB Certified Firm and certification of the designated NEBB Certified Professional may, in accordance with provisions and procedures set forth in NEBB’s Operational Procedures, be suspended or terminated for, among other, the following reasons:
  - a. failure to pay annual fees and/or recertify, as provided, in the NEBB Bylaws and Operational Procedures
  - b. failure to abide by the provisions of NEBB’s Bylaws and its Operational Procedures
  - c. conduct by a NEBB Certified Firm or NEBB Certified Professional, which, as found by the NEBB Board of Directors, is not in the best interest of NEBB
  
- III. No person who is a local chapter or national official, officer or committee member shall use information gained in that capacity for any purpose other than performing the responsibilities of that person’s position. Use of such information for any other purpose is grounds for suspension or termination of any NEBB certification held by that person and, in circumstances where such use is done with the knowledge of an owner, directly or indirectly, of a NEBB Certified Firm, for suspension or termination of that Firm’s certification.

The undersigned, by their signatures below, acknowledge having read the foregoing NEBB Code of Business Ethics, acknowledge that they fully understand its content and agree to follow the NEBB Operational Procedures and the Code of Business Ethics.

\_\_\_\_\_  
Signature of designated NEBB Certified Professional

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Firm Name

\_\_\_\_\_  
Signature of Firm Officer

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

Firm Name: \_\_\_\_\_

REQUIRED RETRO-COMMISSIONING OF EXISTING BUILDINGS INSTRUMENTS - Procedural Standard 2009 Second Edition					
FUNCTION	MINIMUM RANGE	MINIMUM ACCURACY	MINIMUM RESOLUTION	INSTRUMENT INFORMATION	Calibration Interval:
					12 Months
Rotation Measurement	0 to 5,000 RPM	± 2% of reading	± 1 RPM	Mfr. / Model Number:	Calibration Date:
				Serial Number:	
<b>Temperature Measurement</b>					
Air	- 40 to 240° F (IP)	± 0.5% of reading + 1.4° F (IP)	0.2° F (IP)	<b>THERMOMETER:</b>	
				Mfr. / Model Number:	Calibration Date:
			Serial Number:		
	- 40 to 115° C (SI)	± 1% of reading + 0.8° C (SI)	0.1° C (SI)	<b>PROBE:</b>	
Mfr. / Model Number:				Calibration Date:	
		Serial Number:			
Immersion	- 40 to 240° F (IP)	± 0.5% of reading + 1.4° F (IP)	0.2° F (IP)	<b>THERMOMETER:</b>	
				Mfr. / Model Number:	Calibration Date:
			Serial Number:		
	- 40 to 115° C (SI)	± 1% of reading + 0.8° C (SI)	0.1° C (SI)	<b>PROBE:</b>	
Mfr. / Model Number:				Calibration Date:	
		Serial Number:			
Contact	- 40 to 240° F (IP)	± 0.5% of reading + 1.4° F (IP)	0.2° F (IP)	<b>THERMOMETER:</b>	
				Mfr. / Model Number:	Calibration Date:
			Serial Number:		
	- 40 to 115° C (SI)	± 1% of reading + 0.8° C (SI)	0.1° C (SI)	<b>PROBE:</b>	
Mfr. / Model Number:				Calibration Date:	
		Serial Number:			

Firm Name: \_\_\_\_\_

REQUIRED RETRO-COMMISSIONING OF EXISTING BUILDINGS INSTRUMENTS - Procedural Standard 2009 Second Edition					
FUNCTION	MINIMUM RANGE	MINIMUM ACCURACY	MINIMUM RESOLUTION	INSTRUMENT INFORMATION	Calibration Interval:
					12 Months
<b>Electrical Measurement CAT III True RMS</b>					
Volts	0 to 600 VAC	± 2% of reading	1.0 Volt	Mfr. / Model Number:	Calibration Date:
				Serial Number:	
Amperes	0 to 100 Amps	± 2% of reading	0.1 Ampere	Mfr. / Model Number:	Calibration Date:
				Serial Number:	
Air Pressure Measurement	0 to 10.00 in w.g. (IP)	± 2% of reading ± 0.001 in w.g.	0.01 in w.g. ≤ 1 in w.g. (IP)	Mfr. / Model Number:	Calibration Date:
	0 to 2,500 Pascals (SI)		0.01 in. w.g. > 1 in w.g. (IP) 2.5 Pascals ≤ 250 Pascals (SI) 25 Pascals > 250 Pascals (SI)	Serial Number:	
Air Velocity Measurement Hot Wire Anemometer OR Airfoil with Digital Meter	50 to 3,900 fpm	± 5% of reading, not less than ± 7fpm	1.0 fpm	Mfr. / Model Number:	Calibration Date:
				Serial Number:	
Humidity Measurement	10 to 90% RH	3% of reading	1.0%	Mfr. / Model Number:	Calibration Date:
				Serial Number:	
Direct Reading Hood	100 to 2,000 cfm (IP)	± 5% of reading ± 5 cfm (IP)	Digital: 1 cfm (IP) Analog - Not Applicable	Mfr. / Model Number:	Calibration Date:
	50 to 1,000 L/s (SI)	± 5% of reading 2.5 L/s (SI)	Digital: 0.5 L/s (SI) Analog - Not Applicable	Serial Number:	

Firm Name: \_\_\_\_\_

REQUIRED RETRO-COMMISSIONING OF EXISTING BUILDINGS INSTRUMENTS - Procedural Standard 2009 Second Edition					
FUNCTION	MINIMUM RANGE	MINIMUM ACCURACY	MINIMUM RESOLUTION	INSTRUMENT INFORMATION	Calibration Interval:
					12 Months
Hydronic Pressure Measurement	-30 in hg to 60 PSI (IP)	± 2% of reading ± 1 psi	0.5 PSI (IP)	Mfr. / Model Number:	Calibration Date:
	-760 mm hg to 400 kPa (SI)		3.3 kPa (SI)	Serial Number:	
	0 to 100 PSI (IP)	± 2% of reading ± 1 psi	1.0 PSI (IP)	Mfr. / Model Number:	Calibration Date:
	0 to 700 kPa (SI)		6.7 kPa (SI)	Serial Number:	
	0 to 200 PSI (IP)	± 2% of reading ± 1 psi	2.5 PSI (IP)	Mfr. / Model Number:	Calibration Date:
	0 to 1,400 kPa (SI)		16.7 kPa (SI)	Serial Number:	
Hydronic Differential Pressure Measurement	0 to 100 in. w.g. (IP) 0 to 25 kPa (SI)	± 2% of reading ± 2 in w.g.	1.0 in w.g. (IP) 250 Pa (SI)	Mfr. / Model Number:	Calibration Date:
				Serial Number:	
	0 to 200 ft. w.g. (IP) 0 to 600 kPa (SI)	± 2% of reading ± 0.2 ft w.g.	1.0 ft w.g. (IP) 3.0 kPa (SI)	Mfr. / Model Number:	Calibration Date:
				Serial Number:	
Data Loggers: Carbon Dioxide (CO <sub>2</sub> ) Qty 1	0 to 2,500 ppm	±50 ppm or 5% of reading	1 ppm	Mfr. / Model Number:	Calibration Date: (Ref Note 4)
				Serial Number:	
Data Loggers: Carbon Monoxide (CO) - Qty 1	0 to 1,000 ppm	±6 ppm	1 ppm	Mfr. / Model Number:	Calibration Date: (Ref Note 4)
				Serial Number:	
Data Loggers: Lighting Levels- Qty 1	1 to 3,000 footcandles	±10 footcandles	2 footcandles	Mfr. / Model Number:	Calibration Date: (Ref Note 4)
				Serial Number:	

Firm Name: \_\_\_\_\_

REQUIRED RETRO-COMMISSIONING OF EXISTING BUILDINGS INSTRUMENTS - Procedural Standard 2009 Second Edition					
FUNCTION	MINIMUM RANGE	MINIMUM ACCURACY	MINIMUM RESOLUTION	INSTRUMENT INFORMATION	Calibration Interval:
					12 Months
Data Logger: Electrical- Qty 2 Volts AC Amperes	0 to 600 VAC 0 to 100 Amps	2% of full scale 2% of full scale	1.0 Volt 0.5 Ampere	Please use page 9 to list logger information	Calibration Date: (Ref Note 4)
Data Logger - Static Pressure Low Range- Qty 1	0 to 0.25" w.c.	± 2% of full scale	0.01 in w.g. < 1in.w.g.	Mfr. / Model Number: Serial Number:	Calibration Date: (Ref Note 4)
Data Logger Static Pressure High Range- Qty 1	0 to 6.00" w.c.	± 2% of full scale	0.10 in.w.g. > 1in.w.g.	Mfr. / Model Number: Serial Number:	Calibration Date: (Ref Note 4)
Data Logger: Water Pressure- Qty 1	0 to 100 psi (IP)	± 1% of full scale	scale 1.0 psi	Mfr. / Model Number: Serial Number:	Calibration Date: (Ref Note 4)
Data Loggers: Temperature- Qty 8	-4 to 150 °F (IP)	± 0.5°F @ 77 °F (IP)	0.2 °F (IP)	Please use page 9 to list logger information	Calibration Date: (Ref Note 4)
Data Loggers: Humidity- Qty 8	10-90% RH	3% RH	1%	Please use page 9 to list logger information	Calibration Date: (Ref Note 4)
Datas Logger Event- Qty 2	NA	NA	NA	Please use page 9 to list logger information	Calibration Date: (Ref Note 4)
Receptacle Tester	125 VAC	NA	NA	Mfr. / Model Number: Serial Number:	Calibration not required
Voltage Detector	50 to 1,000 VAC	NA	NA	Mfr. / Model Number: Serial Number:	Calibration not required

Firm Name: \_\_\_\_\_

REQUIRED RETRO-COMMISSIONING OF EXISTING BUILDINGS INSTRUMENTS - Procedural Standard 2009 Second Edition					
FUNCTION	MINIMUM RANGE	MINIMUM ACCURACY	MINIMUM RESOLUTION	INSTRUMENT INFORMATION	Calibration Interval:
					12 Months
Light Level Meter	0 to 40,000 Lumens	+/-3% + 0.5% of full scale	10 L	Mfr. / Model Number:	Calibration Date: (Ref Note 4)
				Serial Number:	
Digital Camera	NA	NA	4.0 Mega Pixels Min.	Mfr. / Model Number:	Calibration not required
				Serial Number:	
Differential Temperature Documentation -Thermal Camera	-4 to 450° F	± 2 % or 3.6° F	.1 @ 86° F and 160 x 120	Mfr. / Model Number:	Calibration Date: (Ref Note 3)
				Serial Number:	
Capacitance Moisture Measurement	0 - 99% Moisture Level	± 3%	1%	Mfr. / Model Number:	Calibration Date: (Ref Note 3)
				Serial Number:	
Temperature Measurement	0 to 500 °F	± 2% of reading or 3.5 °F	± 0.1°F (IP)	Mfr. / Model Number:	Calibration Date: (Ref Note 3)
				Serial Number:	

- 1. Instruments with multiple capabilities shall be accepted for more than one function when submitting documentation for a firm's certification, providing that each separate function meets NEBB*
- 2. Calibrations of all instrumentation requiring calibrations shall be traceable to current NIST Standards for US Firms, or equivalent organizations in other countries*
- 3. Calibration per manufacturer requirements*
- 4. Instrument calibration can be verified from a calibrated instrument with current calibration certification or from calibrated gas by using a calibration offset*



Firm Name: \_\_\_\_\_

**REQUIRED RETRO-COMMISSIONING OF EXISTING BUILDINGS INSTRUMENTS - Procedural Standard 2009 Second Edition**

**DATA LOGGER - TEMPERATURE**

Number	Make	Model	Serial Number
1			
2			
3			
4			
5			
6			
7			
8			

**DATA LOGGER - HUMIDITY**

Number	Make	Model	Serial Number
1			
2			
3			
4			
5			
6			
7			
8			

**DATA LOGGER - ELECTRICAL**

Number	Make	Model	Serial Number
1			
2			

**DATA LOGGER - EVENT**

Number	Make	Model	Serial Number
1			
2			

**VERIFICATION OF INSTRUMENT RECORD – NEBB TECHNICAL RETRO-COMMISSIONING OF EXISTING BUILDING SYSTEMS  
FORM CF-RCx FIRM CERTIFICATION**

I certify that the firm (name): \_\_\_\_\_

- a. Owns all balancing instruments required for NEBB Certification, including those listed on this form.
- b. Has a sustained calibration and maintenance plan that conforms to NEBB guidelines, described in the current edition of the NEBB *Procedural Standards for Technical Retro-Commissioning of Existing Building Systems*. Calibration of instruments as required by NEBB has been accomplished in accordance with that document.
- c. Has in its employ a designated NEBB Certified RCx Professional who has previously met the NEBB requirements for qualification.

Name Printed: \_\_\_\_\_ Position: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(Authorized Representative of Firm)

**CHAPTER TECHNICAL COMMITTEE CONFIRMATION**

The required instrumentation as listed on this form were verified by me on: \_\_\_\_\_  
(date)

Signature: \_\_\_\_\_ Print name: \_\_\_\_\_  
(Chapter Technical Committee Representative)