

Discipline Function		NEBB Instrument Master List (Effective January 1, 2025)													BET	BSC	CFT	BHT	RCx	Sound	TAB	Vibration	Notes	Calibration Requirements			
		RANGE					ACCURACY				RESOLUTION																
Air	Air Pressure	0	in wg	to	10	in wg	±	2%	of reading	±	0.001	in wg	0.001	in wg	<	1	in wg									12 Months	
													0.01	in wg	>	1	in wg		x	x	x						
		0	Pa	to	2500	Pa	±	2%	of reading	±	0.25	Pa	0.10	Pa	<	250	Pa										
													1.0	Pa	>	250	Pa										
	Air Velocity Instrument for Pitot Traverse	100	fpm	to	3500	fpm	±	5%	of reading	±	7	fpm	1	fpm												12 Months	
		0.50	m/s	to	20	m/s	±	5%	of reading	±	0.04	m/s	0.01	m/s													
	FHT Air Velocity	25	fpm	to	2500	fpm	±	3%	of reading	±	3	fpm	1	fpm												12 Months	
		0.10	m/s	to	12.7	m/s	±	3%	of reading	±	0.02	m/s	0.01	m/s													
Digital Direct Reading Hood	100	cfm	to	2000	cfm	±	5%	of reading	±	7	cfm	1	cfm												12 Months		
	50	l/s	to	944	l/s	±	5%	of reading	±	4	l/s	1	l/s														
Temperature	Air Meter with probe	0	°F	to	200	°F	±	0.5%	of reading	+	2.0	°F	0.1	°F											12 Months		
		-20	°C	to	100	°C	±	0.5%	of reading	+	1.0	°C	0.1	°C													
	Immersion Meter with probe	0	°F	to	200	°F	±	0.5%	of reading	+	2.0	°F	0.1	°F											12 Months		
		-20	°C	to	100	°C	±	0.5%	of reading	+	1.0	°C	0.1	°C													
Humidity	Humidity Meter (w/Probe, if req'd)	10	% RH	to	90	% RH	±	3%	RH																12 Months		
Electrical	Amperage Measurement	0.1	AC Ampere	to	100	AC Amperes	±	2%	of reading	±	5	digits	0.1	AC Ampere											12 Months		
	Voltage Meter - True RMS	1	VAC	to	600	VAC	±	2%	of reading	±	5	digits	1	Volt											12 Months		
Rotation	Rotation Measurement	60	rpm	to	5000	rpm	±	2%	of reading	±	2	rpm	1	rpm											12 Months		
Hydronic	Pressure Measurement	0.4	psi	to	200	psi	±	2%	of reading	±	1	psi	0.1	psi											12 Months		
		3	kPa	to	1400	kPa	±	2%	of reading	±	7	kPa	1.0	kPa													
	Δ Pressure measurement	0.4	psi	to	75	psi	±	2%	of reading	±	0.5	psi	0.01	psi											12 Months		
		3	kPa	to	500	kPa	±	2%	of reading	±	3.5	kPa	0.1	kPa													
RCx Instruments	Receptacle Circuit Tester	125	VAC					Not Applicable				Not Applicable													Not Required		
	Voltage Detector	50	VAC	to	1000	VAC		Not Applicable				Not Applicable														Not Required	
	Light Level Measurement	0	FC	to	4000	FC	±	3%	of reading	+	5%	full scale	0.1	FC												Per Manufacturer's Requirements	
0		lx	to	40000	lx	±	3%	of reading	+	5%	full scale	1.0	lx														
BET / RCx Instruments	Temp Documentation Thermal Camera	-4	°F	to	450	°F	±	2%		or	3.6	°F	0.1 @ 86 °F	&	160 x 120										Per Manufacturer's Requirements		
		-20	°C	to	232	°C	±	2%		or	2.0 °C	°C	0.1 @ 30 °C	&	160 x 120											*8	

Discipline Function		NEBB Instrument Master List (Effective January 1, 2025)												BFT	BSC	CPT	BHT	RCx	Sound	TAB	Vibration	Notes	Calibration Requirements			
		RANGE				ACCURACY				RESOLUTION																
Data Loggers	Carbon Dioxide CO ₂	0	ppm	to	2500	ppm	±	5%	of reading	±	50	ppm	1	ppm					x		Qty = 1	Per Manufacturer's Requirements				
	Carbon Monoxide CO	3	ppm	to	1000	ppm	±	10%	of reading	±	7	ppm	1	ppm					x		Qty = 1	Per Manufacturer's Requirements				
	Lighting Levels	0	FC	to	3000	FC	±	10	FC				2	FC							x		Qty = 1	See Note 5		
		0	lx	to	30000	lx	±	100	lx				0	lx												
	Electrical	0	VAC	to	600	VAC		2%	of reading			VAC	1.0	VAC								x		Qty = 2	See Note 5	
		0	Amperes	to	100	Amperes		4%	of reading			Ampere	0.1	Ampere												
	Static Pressure - Low	0	in wc	to	0.25	in wc	±	1%	full scale				0.01	in wc	<	1	in wc									
													0.1	in wc	>	1	in wc									
		0	Pa	to	60	Pa	±	1%	full scale				2.5	Pa	<	250	Pa									
	Static Pressure - High												0.01	in wc	<	1	in wc									
												0.1	in wc	>	1	in wc										
0		pa	to	1500	Pa	±	1%	full scale				2.5	Pa	<	250	Pa										
Water Pressure	0	psi	to	100	psi	±	1%	of reading	psi			1.0	psi													
	0	kPa	to	700	kPa	±	1%	of reading	kPa			0.1	kPa													
Temperature	-4	°F	to	150	°F	±	0.63	°F	@	32-122	°F	0.05	°F	@	77	°F										
	-20	°C	to	65	°C	±	0.35	°C	@	0-50	°C	0.03	°C	@	25	°C										
Humidity	10	% RH	to	90	% RH		2.5%	RH				1%	RH													
Event	Not Applicable				Not Applicable				Not Applicable																	
RCx Instruments	Thermal Infrared Thermometer	-4	°F	to	500	°F	±	2%	of reading	±	4	°F	0.5	°F												
		-20	°C	to	260	°C	±	2%	of reading	±	2	°C	0.2	°C												
	TDS Meter	0	μ	to	1000	μ	±	2%	full scale				1.0%													
0		ppm	to	1000	ppm	±	2%	full scale																		
Capacitance Moisture Meter	0%		to	100%		±	5%					0.75	inches	Penetration												
CPT Instruments	Particle Counter	A light scattering instrument with display or recording means to count and size discrete particles in air, as defined by ASTM F50-07. Instruments of this type shall provide for a minimum sampling flow rate of 28.3 L/min (1.0 cfm) and a threshold size discrimination of a minimum of 0.3 micrometer in size.																								

Discipline Function		NEBB Instrument Master List (Effective January 1, 2025)											BET	BSC	CPT	BHT	BCx	Sound	TAB	Vibration	Notes	Calibration Requirements	
		RANGE				ACCURACY				RESOLUTION													
CPT Option 1	Aerosol Photometer	CHOOSE ONLY 1 OF THE 2 OPTIONS	The instrument shall have a threshold sensitivity of 0.01%-100% of the challenge aerosol particles and be capable of measuring concentrations with a minimum range from 10 to 90 micrograms/liter. Sample flow rate shall be 28.3 L/min (1 cfm). Readout shall be linear with an accuracy of 1% of full scale of the selected range. ± 2% of reading with a flow rate of 28.3 L/min (1 cfm).												x							*1 & *7	12 Months or 400 operating hours
	Pneumatic Aerosol Generator		A device that can aerosolize oil medium to serve as an artificial challenge for filter integrity testing of systems under 3,000 cfm, typically Laskin nozzle(s) type, atomizer, etc.												x							*1	Not Required
	Thermal Aerosol Generator		A device that can aerosolize oil medium to serve as an artificial challenge for filter integrity testing of systems of 3,000 to 60,000 cfm												x							*1	Not Required
CPT Option 2	Optical Particle Counter for Scan Test		A particle counter should have at least a 1.0 cfm flow rate with a threshold sensitivity of at least 0.3µm. The counter must have an audible alarm for every particle that is counted. The particle counter shall have a continuous counting mode or a sample time that exceeds the time required to completely scan the area of the filter under test. This counter may also be used for Cleanliness Classification above.												x							*1 & *7	12 Months
	Diluter		A device used with the scanning particle counter to sample the aerosol challenge upstream of a filter under test. The dilution ratio should be between 300 – 1,000:1. The resulting counts after dilution should not exceed 100,000 particles.												x							*1	12 Months
	Aerosol Generator		A device that can aerosolize oil or microsphere medium to serve as an artificial challenge for filter integrity testing.												x							*1	Not Required
FHT Instruments	Tracer Gas Detector	Minimum detection range: 0.01 PPM Minimum response time: 1 second The units shall be configured to measure sulfur hexafluoride (SF6), or other approved tracer gas, and display in concentration measurement units (PPM)				±	10%	of reading	or	0.025	ppm	0.01	ppm								12 Months		
	Detection Calibrator	Device used to calibrate the detection instrument in accordance with the manufacturer's specifications.				Not Applicable				Not Applicable											12 Months When Required		
	Local Challenge Source	Device that can generate a small relatively neutrally buoyant smoke, discharging with minimal velocity.				Not Applicable				Not Applicable											Not Required		
	Large Challenge Source	Device that can generate a large relatively neutrally buoyant smoke, discharging with minimal velocity.				Not Applicable				Not Applicable											Not Required		
	Ejector w/critical orifice	Shall conform to the requirements as indicated in the current edition of NEBB FHT PS. See appendix D for instrument specifications				Not Applicable				Not Applicable												Not Required	
	Orifice Calibrator	Flow Meter	0	l/m	to	10	l/m	±	3%			0.1	l/m								*2	Calibrate to appropriate tracer gas	
		Mechanical Device	0	l/m	to	15	l/m	±	0.1	l/m		0.1	l/m										12 Months
	Tracer Gas	Sulfur Hexafluoride Commercial grade (Minimum purity of 99%) or approved replacement gas				Not Applicable				Not Applicable												SDS Required	
Mannequin	A three dimensional mannequin (torso) with arms and shall be of reasonable human proportions and be clothed with a lab coat. The height must be adjustable to meet the height requirements of the various hood configurations; i.e. standard bench hood, ADA height, floor mounted, etc. Probe shall be placed in the normal breathing zone based on the various heights.				Not Applicable				Not Applicable													Not Required	
BET Instruments	Digital pressure flow measurement system	Not Applicable				±	4%	of reading			0.1 Pa (0.0004 inwc, 0.002 psf)			x								Per Manufacturer's Requirements	

Discipline Function		NEBB Instrument Master List (Effective January 1, 2025)						BET	BSC	CPT	FHT	RCx	Sound	TAB	Vibration	Notes	Calibration Requirements	
		RANGE	ACCURACY	RESOLUTION														
Sound Instruments	Sound Level Meter & Octave Band Analyzer	Sound Level Meters (SLM's) with time averaging and full octave band filters (optional third octave band filters)	As listed in Table 3-1.2.1, 3-1.2.2 and 3-1.2.3 which conforms to Type 1 or Type 2 requirements specified in ANSI S1.4	which conforms Appendix A of the NEBB Instrument List													*3	12 Months
		Full Octave Filters	As listed in table 3-1.2.2 and 3-1.2.3 (which conforms with ANSI S1.11 Specification for Octave-Band and Fractional-Octave-Band Analog & Digital Filters	which conforms Appendix A of the NEBB Instrument List														*3
	Acoustic Calibrator	As listed in Table 3-1.1 (which conforms to ANSI S1.40 Specification for Acoustical Calibrators															*3	12 Months
Vibration Instruments	Vibration Analyzer / Meter, Real Time Analyzer & Spectrum Analyzer	Shall meet the minimum requirements as specified below:															*4	12 Months
		Displacement – 0.1 to 100 mils (0.0001 to 0.1 inches)																
Velocity – 0.0005 to 10 in/sec																		
Acceleration – 0.0001 to 30 G's																		
Frequency Range – at least 1 to 1000 Hz (60 to 60,000 RPM)																		
Frequency Resolution – at least 1.25 Hz (1 / 75 RPM) Minimum																		
Lines of resolution ≥ 800																		
Detection - Peak, Peak-to-Peak, RMS																		
FFT Windowing- Hanning at least																		
Averaging – exponential or time and selectable to at least four averages																		
Accelerometers / Transducer		Shall have the following minimum specifications:														*4	12 Months	
		Sensitivity (± 20%) ≥ 100 mV/G typical																
		Measurement Range = ± 20 G peak or greater																
		Frequency Range = 2 to 3000 Hz at ± 3dB																
NOTES																		
*1	CPT Option - choose only Option 1 OR Option 2 - along with required instrument for CPT certification (All instruments in any of the chosen is required)																	
*2	FHT Orifice Calibrator - Choose only one.																	
*3	Refer to Appendix A for complete instrumentation requirements for Sound Measurement (SM)																	
*4	Firms may own or rent vibration equipment instrumentation for vibration certification																	
*5	Calibration Requirement: Data logger calibration may be verified from a calibrated instrument with an associated calibration form showing calibration readings from both the calibrated instrument and the data logger. If a data logger is out of calibration and cannot be adjusted, the logger must be sent back to the factory for re-calibration or be replaced																	
*6	Accuracy of an instrument is either stated as a percentage of full scale or as a percentage of the reading. NEBB has chosen percentage of reading due to it being a more accurate reading. Since a % of reading error becomes smaller as you read near the lowest part of the scale the instrument resolution and accuracy must be very small to maintain the accuracy of the reading. To overcome this the manufactures add a standard offset to the % of reading to maintain a reasonable accuracy at all locations on the scale. Normally for TAB readings we are never operating at the extreme ends of the scale so this has no impact on our work.																	
*7	Calibrated per Industry/Manufacturer standards.																	
*8	Firms may own or rent Temp Documentation Thermal Camera for RCx. BET Temp Documentation Thermal Camera must be owned.																	
*9	Sound level meters with vibration integrators are NOT acceptable for NEBB approved instrumentation for making vibration measurements. That is, 1/3 octave or full octave vibration readings are not sufficient for NEBB Sound and Vibration work.																	
*10	Vibration meters, which ONLY acquire and display the overall vibration level, displacement, velocity, and/or acceleration DO NOT meet NEBB minimum requirements for Vibration instrumentation.																	
	These types of meters may only be used if the contract documents specifically allow for their usage.																	
General Note:	Some local jurisdictions require qualified electrician for any electrical readings																	
Calibration Requirement:	Instruments require a 3-point calibration, traceable to National Institute of Standards and Technology (NIST) or National Metrology Institute (NMI) unless otherwise noted.																	

Discipline Function		BET Required Instrumentation (Effective January 1, 2025)																	
		RANGE				ACCURACY				RESOLUTION				Notes	Calibration Requirements				
Air	Air Pressure	0	in wg	to	10	in wg	±	2%	of reading	±	0.001	in wg	0.001	in wg	<	1	in wg		12 Months
													0.01	in wg	>	1	in wg		
	0	Pa	to	2500	Pa	±	2%	of reading	±	0.25	Pa	0.10	Pa	<	250	Pa			
													1	Pa	>	250	Pa		
Air Velocity Instrument for Pitot Traverse		100	fpm	to	3500	fpm	±	5%	of reading	±	7	fpm	1	fpm					12 Months
		0.50	m/s	to	20	m/s	±	5%	of reading	±	0.04	m/s	0.01	m/s					
Temperature	Air Meter with probe	0	°F	to	200	°F	±	0.5%	of reading	+	2.0	°F	0.1	°F					12 Months
		-20	°C	to	100	°C	±	0.5%	of reading	+	1.0	°C	0.1	°C					
BET / RCx Instruments	Temp Documentation Thermal Camera	-4	°F	to	450	°F	±	2%		or	3.6	°F	0.1 @ 86 °F	&	160 x 120			Per Manufacturer's Requirements	
		-20	°C	to	232	°C	±	2%		or	2.0 °C	°C	0.1 @ 30 °C	&	160 x 120				
BET Instruments	Digital pressure flow measurement system	Not Applicable				±	4%	of reading					0.1 Pa (0.0004 inwc, 0.002 psf)					Per Manufacturer's Requirements	

NOTES

- *1 CPT Option - choose only Option 1 OR Option 2 - along with required instrument for CPT certification (All instruments in any of the chosen is required)
- *2 FHT Orifice Calibrator - Choose only one.
- *3 Refer to Appendix A for complete instrumentation requirements for Sound Measurement (SM)
- *4 Firms may own or rent vibration equipment instrumentation for vibration certification
- *5 Calibration Requirement: Data logger calibration may be verified from a calibrated instrument with an associated calibration form showing calibration readings from both the calibrated instrument and the data logger. If a data logger is out of calibration and cannot be adjusted, the logger must be sent back to the factory for re-calibration or be replaced
- *6 Accuracy of an instrument is either stated as a percentage of full scale or as a percentage of the reading. NEBB has chosen percentage of reading due to it being a more accurate reading. Since a % of reading error becomes smaller as you read near the lowest part of the scale the instrument resolution and accuracy must be very small to maintain the accuracy of the reading. To overcome this the manufactures add a standard offset to the % of reading to maintain a reasonable accuracy at all locations on the scale. Normally for TAB readings we are never operating at the extreme ends of the scale so this has no impact on our work.
- *7 Calibrated per Industry/Manufacturer standards.
- *8 Firms may own or rent Temp Documentation Thermal Camera for RCx. BET Temp Documentation Thermal Camera must be owned.
- *9 Sound level meters with vibration integrators are *NOT* acceptable for NEBB approved instrumentation for making vibration measurements. That is, 1/3 octave or full octave vibration readings are not sufficient for NEBB Sound and Vibration work.
- *10 Vibration meters, which *ONLY* acquire and display the overall vibration level, displacement, velocity, and/or acceleration DO NOT meet NEBB minimum requirements for Vibration instrumentation. These types of meters may only be used if the contract documents specifically allow for their usage.

General Note:

Some local jurisdictions require qualified electrician for any electrical readings

Calibration

Requirement:

Instruments require a 3-point calibration, traceable to National Institute of Standards and Technology (NIST) or National Metrology Institute (NMI) unless otherwise noted.

Discipline Function		BSC Required Instrumentation (Effective January 1, 2025)																	
		RANGE						ACCURACY						RESOLUTION					
Air	Air Pressure	0	in wg	to	10	in wg		2%	of reading	±	0.001	in wg	0.001	in wg	<	1	in wg		
													0.01	in wg	>	1	in wg		
	0	Pa	to	2500	Pa		2%	of reading	±	0.25	Pa	0.10	Pa	<	250	Pa			
												1	Pa	>	250	Pa			
Air Velocity Instrument for Pitot Traverse	100	fpm	to	3500	fpm	±	5%	of reading	±	7	fpm	1	fpm					12 Months	
	0.50	m/s	to	20	m/s	±	5%	of reading	±	0.04	m/s	0.01	m/s						
Digital Direct Reading Hood	100	cfm	to	2000	cfm	±	5%	of reading	±	7	cfm	1	cfm					12 Months	
	50	l/s	to	944	l/s	±	5%	of reading	±	4	l/s	1	l/s						
Temperature	Air Meter with probe	0	°F	to	200	°F	±	0.5%	of reading	+	2.0	°F	0.1	°F				12 Months	
		-20	°C	to	100	°C	±	0.5%	of reading	+	1.0	°C	0.1	°C					
	Immersion Meter with probe	0	°F	to	200	°F	±	0.5%	of reading	+	2.0	°F	0.1	°F				12 Months	
		-20	°C	to	100	°C	±	0.5%	of reading	+	1.0	°C	0.1	°C					
Humidity	Humidity Meter (w/Probe, if req'd)	10	% RH	to	90	% RH		3%	RH				1%					12 Months	
Electrical	Amperage Measurement	0.1	AC Ampere	to	100	AC Amperes		2%	of reading	±	5	digits	0.1	AC Ampere				12 Months	
	Voltage Meter - True RMS	1	VAC	to	600	VAC		2%	of reading	±	5	digits	1	Volt				12 Months	
Rotation	Rotation Measurement	60	rpm	to	5000	rpm		2%	of reading	±	2	rpm	1	rpm				12 Months	
Hydronic	Pressure Measurement	0.4	psi	to	200	psi		2%	of reading	±	1	psi	0.1	psi				12 Months	
		3	kPa	to	1400	kPa		2%	of reading	±	7	kPa	1	kPa					
	Δ Pressure measurement	0.4	psi	to	75	psi		2%	of reading	±	0.5	psi	0.01	psi				12 Months	
		3	kPa	to	500	kPa		2%	of reading	±	3.5	kPa	0.1	kPa					

NOTES

- *1 CPT Option - choose only Option 1 OR Option 2 - along with required instrument for CPT certification (All instruments in any of the chosen is required)
- *2 FHT Orifice Calibrator - Choose only one.
- *3 Refer to Appendix A for complete instrumentation requirements for Sound Measurement (SM)
- *4 Firms may own or rent vibration equipment instrumentation for vibration certification
- *5 Calibration Requirement: Data logger calibration may be verified from a calibrated instrument with an associated calibration form showing calibration readings from both the calibrated instrument and the data logger. If a data logger is out of calibration and cannot be adjusted, the logger must be sent back to the factory for re-calibration or be replaced
- *6 Accuracy of an instrument is either stated as a percentage of full scale or as a percentage of the reading. NEBB has chosen percentage of reading due to it being a more accurate reading. Since a % of reading error becomes smaller as you read near the lowest part of the scale the instrument resolution and accuracy must be very small to maintain the accuracy of the reading. To overcome this the manufactures add a standard offset to the % of reading to maintain a reasonable accuracy at all locations on the scale. Normally for TAB readings we are never operating at the extreme ends of the scale so this has no impact on our work.
- *7 Calibrated per Industry/Manufacturer standards.
- *8 Firms may own or rent Temp Documentation Thermal Camera for RCx. BET Temp Documentation Thermal Camera must be owned.
- *9 Sound level meters with vibration integrators are NOT acceptable for NEBB approved instrumentation for making vibration measurements. That is, 1/3 octave or full octave vibration readings are not sufficient for NEBB Sound and Vibration work.
- *10 Vibration meters, which ONLY acquire and display the overall vibration level, displacement, velocity, and/or acceleration DO NOT meet NEBB minimum requirements for Vibration instrumentation. These types of meters may only be used if the contract documents specifically allow for their usage.

Discipline Function	BSC Required Instrumentation (Effective January 1, 2025)				
		RANGE	ACCURACY	RESOLUTION	Notes
<p>General Note: Some local jurisdictions require qualified electrician for any electrical readings</p> <p>Calibration Requirement: Instruments require a 3-point calibration, traceable to National Institute of Standards and Technology (NIST) or National Metrology Institute (NMI) unless otherwise noted.</p>					

Discipline Function		CPT Required Instrumentation (Effective January 1, 2025)																	
		RANGE						ACCURACY						RESOLUTION					
Air	Air Pressure	0	in wg	to	10	in wg	±	2%	of reading	±	0.001	in wg	0.001	in wg	<	1	in wg		12 Months
		0	Pa	to	2500	Pa	±	2%	of reading	±	0.25	Pa	0.10	Pa	<	250	Pa		
	Air Velocity Instrument for Pitot Traverse	100	fpm	to	3500	fpm	±	5%	of reading	±	7	fpm	1	fpm					12 Months
		0.50	m/s	to	20	m/s	±	5%	of reading	±	0.04	m/s	0.01	m/s					
	Digital Direct Reading Hood	100	cfm	to	2000	cfm	±	5%	of reading	±	7	cfm	1	cfm					12 Months
		50	l/s	to	944	l/s	±	5%	of reading	±	4	l/s	1	l/s					
CPT Instruments	Particle Counter	A light scattering instrument with display or recording means to count and size discrete particles in air, as defined by ASTM F50-07. Instruments of this type shall provide for a minimum sampling flow rate of 28.3 L/min (1.0 cfm) and a threshold size discrimination of a minimum of 0.3 micrometer in size.														*7	12 Months		
CPT Option 1	Aerosol Photometer	CHOOSE ONLY 1 OF THE 2 OPTIONS	The instrument shall have a threshold sensitivity of 0.01%-100% of the challenge aerosol particles and be capable of measuring concentrations with a minimum range from 10 to 90 micrograms/liter. Sample flow rate shall be 28.3 L/min (1 cfm). Readout shall be linear with an accuracy of 1% of full scale of the selected range. ± 2% of reading with a flow rate of 28.3 L/min (1 cfm).														*1 & *7	12 Months or 400 operating hours	
	Pneumatic Aerosol Generator		A device that can aerosolize oil medium to serve as an artificial challenge for filter integrity testing of systems under 3,000 cfm, typically Laskin nozzle(s) type, atomizer, etc.														*1	Not Required	
	Thermal Aerosol Generator		A device that can aerosolize oil medium to serve as an artificial challenge for filter integrity testing of systems of 3,000 to 60,000 cfm														*1	Not Required	
CPT Option 2	Optical Particle Counter for Scan Test		A particle counter should have at least a 1.0 cfm flow rate with a threshold sensitivity of at least 0.3µm. The counter must have an audible alarm for every particle that is counted. The particle counter shall have a continuous counting mode or a sample time that exceeds the time required to completely scan the area of the filter under test. This counter may also be used for Cleanliness Classification above.														*1 & *7	12 Months	
	Diluter		A device used with the scanning particle counter to sample the aerosol challenge upstream of a filter under test. The dilution ratio should be between 300 – 1,000:1. The resulting counts after dilution should not exceed 100,000 particles.														*1	12 Months	
	Aerosol Generator		A device that can aerosolize oil or microsphere medium to serve as an artificial challenge for filter integrity testing.														*1	Not Required	

NOTES

- *1 CPT Option - choose only Option 1 OR Option 2 - along with required instrument for CPT certification (All instruments in any of the chosen is required)
- *2 FHT Orifice Calibrator - Choose only one.
- *3 Refer to Appendix A for complete instrumentation requirements for Sound Measurement (SM)
- *4 Firms may own or rent vibration equipment instrumentation for vibration certification
- *5 Calibration Requirement: Data logger calibration may be verified from a calibrated instrument with an associated calibration form showing calibration readings from both the calibrated instrument and the data logger. If a data logger is out of calibration and cannot be adjusted, the logger must be sent back to the factory for re-calibration or be replaced
- *6 Accuracy of an instrument is either stated as a percentage of full scale or as a percentage of the reading. NEBB has chosen percentage of reading due to it being a more accurate reading. Since a % of reading error becomes smaller as you read near the lowest part of the scale the instrument resolution and accuracy must be very small to maintain the accuracy of the reading. To overcome this the manufactures add a standard offset to the % of reading to maintain a reasonable accuracy at all locations on the scale. Normally for TAB readings we are never operating at the extreme ends of the scale so this has no impact on our work.
- *7 Calibrated per Industry/Manufacturer standards.
- *8 Firms may own or rent Temp Documentation Thermal Camera for RCx. BET Temp Documentation Thermal Camera must be owned.
- *9 Sound level meters with vibration integrators are NOT acceptable for NEBB approved instrumentation for making vibration measurements. That is, 1/3 octave or full octave vibration readings are not sufficient for NEBB Sound and Vibration work.
- *10 Vibration meters, which ONLY acquire and display the overall vibration level, displacement, velocity, and/or acceleration DO NOT meet NEBB minimum requirements for Vibration instrumentation. These types of meters may only be used if the contract documents specifically allow for their usage.

Discipline Function	CPT Required Instrumentation (Effective January 1, 2025)					
		RANGE	ACCURACY	RESOLUTION	Notes	Calibration Requirements
General Note: Some local jurisdictions require qualified electrician for any electrical readings Calibration Requirement: Instruments require a 3-point calibration, traceable to National Institute of Standards and Technology (NIST) or National Metrology Institute (NMI) unless otherwise noted.						

Discipline Function		FHT Required Instrumentation (Effective January 1, 2025)															Notes	Calibration Requirements		
		RANGE					ACCURACY					RESOLUTION								
Air	FHT Air Velocity	25	fpm	to	2500	fpm	±	3%	of reading	±	3	fpm	1	fpm					12 Months	
		0.10	m/s	to	12.7	m/s	±	3%	of reading	±	0.02	m/s	0.01	m/s						
FHT Instruments	Tracer Gas Detector	Minimum detection range: 0.01 PPM Minimum response time: 1 second The units shall be configured to measure sulfur hexafluoride (SF6), or other approved tracer gas, and display in concentration measurement units (PPM)					±	10%	of reading	or	0.025	ppm	0.01	ppm					12 Months	
	Detection Calibrator	Device used to calibrate the detection instrument in accordance with the manufacturer's specifications.					Not Applicable					Not Applicable						12 Months When Required		
	Local Challenge Source	Device that can generate a small relatively neutrally buoyant smoke, discharging with minimal velocity.					Not Applicable					Not Applicable						Not Required		
	Large Challenge Source	Device that can generate a large relatively neutrally buoyant smoke, discharging with minimal velocity.					Not Applicable					Not Applicable						Not Required		
	Ejector w/critical orifice	Shall conform to the requirements as indicated in the current edition of NEBB FHT PS. See appendix D for instrument specifications					Not Applicable					Not Applicable						Not Required		
	Orifice Calibrator	Flow Meter	0	l/m	to	10	l/m	±	3%					0.1	l/m				*2	Calibrate to appropriate tracer gas
		Mechanical Device	0	l/m	to	15	l/m	±	0.1	l/m				0.1	l/m					12 Months
	Tracer Gas	Sulfur Hexafluoride Commercial grade (Minimum purity of 99%) or approved replacement gas					Not Applicable					Not Applicable						SDS Required		
Mannequin	A three dimensional mannequin (torso) with arms and shall be of reasonable human proportions and be clothed with a lab coat. The height must be adjustable to meet the height requirements of the various hood configurations; i.e. standard bench hood, ADA height, floor mounted, etc. Probe shall be placed in the normal breathing zone based on the various heights.					Not Applicable					Not Applicable						Not Required			

NOTES

- *1 CPT Option - choose only Option 1 OR Option 2 - along with required instrument for CPT certification (All instruments in any of the chosen is required)
- *2 FHT Orifice Calibrator - Choose only one.
- *3 Refer to Appendix A for complete instrumentation requirements for Sound Measurement (SM)
- *4 Firms may own or rent vibration equipment instrumentation for vibration certification
- *5 Calibration Requirement: Data logger calibration may be verified from a calibrated instrument with an associated calibration form showing calibration readings from both the calibrated instrument and the data logger. If a data logger is out of calibration and cannot be adjusted, the logger must be sent back to the factory for re-calibration or be replaced
- *6 Accuracy of an instrument is either stated as a percentage of full scale or as a percentage of the reading. NEBB has chosen percentage of reading due to it being a more accurate reading. Since a % of reading error becomes smaller as you read near the lowest part of the scale the instrument resolution and accuracy must be very small to maintain the accuracy of the reading. To overcome this the manufactures add a standard offset to the % of reading to maintain a reasonable accuracy at all locations on the scale. Normally for TAB readings we are never operating at the extreme ends of the scale so this has no impact on our work.
- *7 Calibrated per Industry/Manufacturer standards.
- *8 Firms may own or rent Temp Documentation Thermal Camera for RCx. BET Temp Documentation Thermal Camera must be owned.
- *9 Sound level meters with vibration integrators are NOT acceptable for NEBB approved instrumentation for making vibration measurements. That is, 1/3 octave or full octave vibration readings are not sufficient for NEBB Sound and Vibration work.
- *10 Vibration meters, which ONLY acquire and display the overall vibration level, displacement, velocity, and/or acceleration DO NOT meet NEBB minimum requirements for Vibration instrumentation. These types of meters may only be used if the contract documents specifically allow for their usage.

Discipline Function	FHT Required Instrumentation (Effective January 1, 2025)					
		RANGE	ACCURACY	RESOLUTION	Notes	Calibration Requirements
<p>General Note: Some local jurisdictions require qualified electrician for any electrical readings</p> <p>Calibration Requirement: Instruments require a 3-point calibration, traceable to National Institute of Standards and Technology (NIST) or National Metrology Institute (NMI) unless otherwise noted.</p>						

Discipline Function		RCx Required Instrumentation (Effective January 1, 2025)																			
		RANGE					ACCURACY					RESOLUTION					Notes	Calibration Requirements			
Air	Air Pressure	0	in wg	to	10	in wg		2%	of reading	±	0.001	in wg	0.001	in wg	<	1	in wg			12 Months	
													0.01	in wg	>	1	in wg				
		0	Pa	to	2500	Pa		2%	of reading	±	0.25	Pa	0.10	Pa	<	250	Pa			12 Months	
												1	Pa	>	250	Pa					
	Air Velocity Instrument for Pitot Traverse	100	fpm	to	3500	fpm	±	5%	of reading	±	7	fpm	1	fpm						12 Months	
			0.50	m/s	to	20	m/s	±	5%	of reading	±	0.04	m/s	0.01	m/s						
	Digital Direct Reading Hood	100	cfm	to	2000	cfm	±	5%	of reading	±	7	cfm	1	cfm						12 Months	
			50	l/s	to	944	l/s	±	5%	of reading	±	4	l/s	1	l/s						
Temperature	Air Meter with probe	0	°F	to	200	°F	±	0.5%	of reading	+	2.0	°F	0.1	°F						12 Months	
			-20	°C	to	100	°C	±	0.5%	of reading	+	1.0	°C	0.1	°C						
		Immersion Meter with probe	0	°F	to	200	°F	±	0.5%	of reading	+	2.0	°F	0.1	°F						12 Months
				-20	°C	to	100	°C	±	0.5%	of reading	+	1.0	°C	0.1	°C					
Humidity	Humidity Meter (w/Probe, if req'd)	10	% RH	to	90	% RH		3%	RH				1%							12 Months	
Electrical	Amperage Measurement	0.1	AC Ampere	to	100	AC Amperes		2%	of reading	±	5	digits	0.1	AC Ampere						12 Months	
	Voltage Meter - True RMS	1	VAC	to	600	VAC		2%	of reading	±	5	digits	1	Volt						12 Months	
Rotation	Rotation Measurement	60	rpm	to	5000	rpm		2%	of reading	±	2	rpm	1	rpm						12 Months	
Hydronic	Pressure Measurement	0.4	psi	to	200	psi		2%	of reading	±	1	psi	0.1	psi						12 Months	
			3	kPa	to	1400	kPa		2%	of reading	±	7	kPa	1	kPa						
	Δ Pressure measurement	0.4	psi	to	75	psi		2%	of reading	±	0.5	psi	0.01	psi						12 Months	
			3	kPa	to	500	kPa		2%	of reading	±	3.5	kPa	0.1	kPa						
RCx Instruments	Receptacle Circuit Tester	125	VAC					Not Applicable					Not Applicable						Not Required		
	Voltage Detector	50	VAC	to	1000	VAC		Not Applicable					Not Applicable						Not Required		
	Light Level Measurement	0	FC	to	4000	FC	±	3%	of reading	+	5.0%	full scale	0.1	FC						Per Manufacturer's Requirements	
			0	lx	to	40000	lx	±	3%	of reading	+	5.0%	full scale	1.0	lx						
BET / RCx Instruments	Temp Documentation Thermal Camera	-4	°F	to	450	°F	±	2%		or	3.6	°F	0.1 @ 86 °F	&	160 x 120			*8	Per Manufacturer's Requirements		
			-20	°C	to	232	°C	±	2%		or	2.0°C	°C	0.1 @ 30 °C	&	160 x 120					

Discipline Function		RCx Required Instrumentation (Effective January 1, 2025)																		
		RANGE					ACCURACY					RESOLUTION					Notes	Calibration Requirements		
Data Loggers	Carbon Dioxide CO2	0	ppm	to	2500	ppm	±	5%	of reading	±	50	ppm	1	ppm					Qty = 1	Per Manufacturer's Requirements
	Carbon Monoxide CO	3	ppm	to	1000	ppm	±	10%	of reading	±	7	ppm	1	ppm					Qty = 1	Per Manufacturer's Requirements
	Lighting Levels	0	FC	to	3000	FC	±	10	FC				2	FC					Qty = 1	See Note 5
		0	lx	to	30000	lx	±	100	lx				0	lx						
	Electrical	0	VAC	to	600	VAC	0	2%	of reading				VAC	1.0	VAC				Qty = 2	See Note 5
		0	Amperes	to	100	Amperes	0	4%	of reading				Ampere	0.1	Ampere					
	Static Pressure - Low	0	in wc	to	0.25	in wc	±	1%	full scale				0.01	in wc	<	1	in wc	Qty = 1	See Note 5	
		0	Pa	to	60	Pa	±	1%	full scale				0.1	in wc	>	1	in wc			
	Static Pressure - High	0	in wc	to	6.00	in wc	±	1%	full scale				0.01	in wc	<	1	in wc	Qty = 1	See Note 5	
		0	pa	to	1500	Pa	±	1%	full scale				0.1	in wc	>	1	in wc			
	Water Pressure	0	psi	to	100	psi	±	1%	of reading	psi			1.0	psi				Qty = 1	See Note 5	
		0	kPa	to	700	kPa	±	1%	of reading	kPa			0.1	kPa						
	Temperature	-4	°F	to	150	°F	±	1	°F	@	32-122	°F	0.05	°F	@	77	°F	Qty = 8	See Note 5	
-20		°C	to	65	°C	±	0.35	°C	@	0-50	°C	0.03	°C	@	25	°C				
Humidity	10	% RH	to	90	% RH	0	2.5%	RH				1%	RH				Qty = 8	See Note 5		
Event		Not Applicable					Not Applicable					Not Applicable					Qty = 2	Not required		

Discipline Function		RCx Required Instrumentation (Effective January 1, 2025)																	
		RANGE					ACCURACY					RESOLUTION				Notes	Calibration Requirements		
RCx Instruments	Thermal Infrared Thermometer	-4	°F	to	500	°F	±	2%	of reading	±	4	°F	0.5	°F					Per Manufacturer's Requirements
		-20	°C	to	260	°C	±	2%	of reading	±	2	°C	0.2	°C					
	TDS Meter	0	μ	to	1000	μ	±	2%	full scale				1.0%					Per Manufacturer's Requirements	
		0	ppm	to	1000	ppm	±	2%	full scale										
	Capacitance Moisture Meter	0%	0	to	100%		±	5%					0.75	inches	Penetration			Per Manufacturer's Requirements	

NOTES

- *1 CPT Option - choose only Option 1 OR Option 2 - along with required instrument for CPT certification (All instruments in any of the chosen is required)
- *2 FHT Orifice Calibrator - Choose only one.
- *3 Refer to Appendix A for complete instrumentation requirements for Sound Measurement (SM)
- *4 Firms may own or rent vibration equipment instrumentation for vibration certification
- *5 Calibration Requirement: Data logger calibration may be verified from a calibrated instrument with an associated calibration form showing calibration readings from both the calibrated instrument and the data logger. If a data logger is out of calibration and cannot be adjusted, the logger must be sent back to the factory for re-calibration or be replaced
- *6 Accuracy of an instrument is either stated as a percentage of full scale or as a percentage of the reading. NEBB has chosen percentage of reading due to it being a more accurate reading. Since a % of reading error becomes smaller as you read near the lowest part of the scale the instrument resolution and accuracy must be very small to maintain the accuracy of the reading. To overcome this the manufactures add a standard offset to the % of reading to maintain a reasonable accuracy at all locations on the scale. Normally for TAB readings we are never operating at the extreme ends of the scale so this has no impact on our work.
- *7 Calibrated per Industry/Manufacturer standards.
- *8 Firms may own or rent Temp Documentation Thermal Camera for RCx. BET Temp Documentation Thermal Camera must be owned.
- *9 Sound level meters with vibration integrators are NOT acceptable for NEBB approved instrumentation for making vibration measurements. That is, 1/3 octave or full octave vibration readings are not sufficient for NEBB Sound and Vibration work.
- *10 Vibration meters, which ONLY acquire and display the overall vibration level, displacement, velocity, and/or acceleration DO NOT meet NEBB minimum requirements for Vibration instrumentation.

Discipline Function		SM Required Instrumentation (Effective January 1, 2025)				
			RANGE	ACCURACY	RESOLUTION	Notes
Sound Instruments	Sound Level Meter & Octave Band Analyzer	Sound Level Meters (SLM's) with time averaging and full octave band filters (optional)	As listed in Table 3-1.2.1, 3-1.2.2 and 3-1.2.3 which conforms to Type 1 or Type 2 requirements specified in ANSI S1.4	which conforms Appendix A of the NEBB Instrument List	*3	12 Months
		Full Octave Filters	As listed in table 3-1.2.2 and 3-1.2.3 (which conforms with ANSI S1.11 Specification for Octave-Band and Fractional-Octave-Band Analog & Digital Filters)	which conforms Appendix A of the NEBB Instrument List		12 Months
	Acoustic Calibrator	As listed in Table 3-1.1 (which conforms to ANSI S1.40 Specification for Acoustical Calibrators)			*3	12 Months

NOTES

- *1 CPT Option - choose only Option 1 OR Option 2 - along with required instrument for CPT certification (All instruments in any of the chosen is required)
- *2 FHT Orifice Calibrator - Choose only one.
- *3 Refer to Appendix A for complete instrumentation requirements for Sound Measurement (SM)
- *4 Firms may own or rent vibration equipment instrumentation for vibration certification
- *5 Calibration Requirement: Data logger calibration may be verified from a calibrated instrument with an associated calibration form showing calibration readings from both the calibrated instrument and the data logger. If a data logger is out of calibration and cannot be adjusted, the logger must be sent back to the factory for re-calibration or be replaced
- *6 Accuracy of an instrument is either stated as a percentage of full scale or as a percentage of the reading. NEBB has chosen percentage of reading due to it being a more accurate reading. Since a % of reading error becomes smaller as you read near the lowest part of the scale the instrument resolution and accuracy must be very small to maintain the accuracy of the reading. To overcome this the manufactures add a standard offset to the % of reading to maintain a reasonable accuracy at all locations on the scale. Normally for TAB readings we are never operating at the extreme ends of the scale so this has no impact on our work.
- *7 Calibrated per Industry/Manufacturer standards.
- *8 Firms may own or rent Temp Documentation Thermal Camera for RCx. BET Temp Documentation Thermal Camera must be owned.
- *9 Sound level meters with vibration integrators are *NOT* acceptable for NEBB approved instrumentation for making vibration measurements. That is, 1/3 octave or full octave vibration readings are not sufficient for NEBB Sound and Vibration work.
- *10 Vibration meters, which *ONLY* acquire and display the overall vibration level, displacement, velocity, and/or acceleration DO NOT meet NEBB minimum requirements for Vibration instrumentation. These types of meters may only be used if the contract documents specifically allow for their usage.

General Note: Some local jurisdictions require qualified electrician for any electrical readings

Calibration

Requirement: Instruments require a 3-point calibration, traceable to National Institute of Standards and Technology (NIST) or National Metrology Institute (NMI) unless otherwise noted.

Discipline Function		TAB Required Instrumentation (Effective January 1, 2025)																Notes	Calibration Requirements
		RANGE				ACCURACY				RESOLUTION									
Air	Air Pressure	0	in wg	to	10	in wg		2%	of reading	±	0.001	in wg	0.001	in wg	<	1	in wg		12 Months
													0.01	in wg	>	1	in wg		
		0	Pa	to	2500	Pa		2%	of reading	±	0.25	Pa	0.10	Pa	<	250	Pa		
													1.0	Pa	>	250	Pa		
	Air Velocity Instrument for Pitot Traverse	100	fpm	to	3500	fpm	±	5%	of reading	±	7	fpm	1	fpm					12 Months
		0.50	m/s	to	20	m/s	±	5%	of reading	±	0.04	m/s	0.01	m/s					
Digital Direct Reading Hood	100	cfm	to	2000	cfm	±	5%	of reading	±	7	cfm	1	cfm					12 Months	
	50	l/s	to	944	l/s	±	5%	of reading	±	4	l/s	1	l/s						
Temperature	Air Meter with probe	0	°F	to	200	°F	±	0.5%	of reading	+	2.0	°F	0.1	°F					12 Months
		-20	°C	to	100	°C	±	0.5%	of reading	+	1.0	°C	0.1	°C					
	Immersion Meter with probe	0	°F	to	200	°F	±	0.5%	of reading	+	2.0	°F	0.1	°F					12 Months
		-20	°C	to	100	°C	±	0.5%	of reading	+	1.0	°C	0.1	°C					
Humidity	Humidity Meter (w/Probe, if req'd)	10	% RH	to	90	% RH	±	3%	RH			1%						12 Months	
Electrical	Amperage Measurement	0.1	AC Ampere	to	100	AC Amperes		2%	of reading	±	5	digits	0.1	AC Ampere					12 Months
	Voltage Meter - True RMS	1	VAC	to	600	VAC		2%	of reading	±	5	digits	1	Volt					12 Months
Rotation	Rotation Measurement	60	rpm	to	5000	rpm		2%	of reading	±	2	rpm	1	rpm					12 Months
Hydronic	Pressure Measurement	0.4	psi	to	200	psi		2%	of reading	±	1	psi	0.1	psi					12 Months
		3	kPa	to	1400	kPa		2%	of reading	±	7	kPa	1.0	kPa					
	Δ Pressure measurement	0.4	psi	to	75	psi		2%	of reading	±	0.5	psi	0.01	psi					12 Months
		3	kPa	to	500	kPa		2%	of reading	±	3.5	kPa	0.1	kPa					

NOTES

- *1 CPT Option - choose only Option 1 OR Option 2 - along with required instrument for CPT certification (All instruments in any of the chosen is required)
 - *2 FHT Orifice Calibrator - Choose only one.
 - *3 Refer to Appendix A for complete instrumentation requirements for Sound Measurement (SM)
 - *4 Firms may own or rent vibration equipment instrumentation for vibration certification
 - *5 Calibration Requirement: Data logger calibration may be verified from a calibrated instrument with an associated calibration form showing calibration readings from both the calibrated instrument and the data logger. If a data logger is out of calibration and cannot be adjusted, the logger must be sent back to the factory for re-calibration or be replaced
 - *6 Accuracy of an instrument is either stated as a percentage of full scale or as a percentage of the reading. NEBB has chosen percentage of reading due to it being a more accurate reading. Since a % of reading error becomes smaller as you read near the lowest part of the scale the instrument resolution and accuracy must be very small to maintain the accuracy of the reading. To overcome this the manufactures add a standard offset to the % of reading to maintain a reasonable accuracy at all locations on the scale. Normally for TAB readings we are never operating at the extreme ends of the scale so this has no impact on our work.
 - *7 Calibrated per Industry/Manufacturer standards.
 - *8 Firms may own or rent Temp Documentation Thermal Camera for RCx. BET Temp Documentation Thermal Camera must be owned.
 - *9 Sound level meters with vibration integrators are NOT acceptable for NEBB approved instrumentation for making vibration measurements. That is, 1/3 octave or full octave vibration readings are not sufficient for NEBB Sound and Vibration work.
 - *10 Vibration meters, which ONLY acquire and display the overall vibration level, displacement, velocity, and/or acceleration DO NOT meet NEBB minimum requirements for Vibration instrumentation. These types of meters may only be used if the contract documents specifically allow for their usage.
- General Note:** Some local jurisdictions require qualified electrician for any electrical readings
- Calibration Requirement:** Instruments require a 3-point calibration, traceable to National Institute of Standards and Technology (NIST) or National Metrology Institute (NMI) unless otherwise noted.

Discipline Function		VM Required Instrumentation (Effective January 1, 2025)					
			RANGE	ACCURACY	RESOLUTION	Notes	Calibration Requirements
Vibration Instruments	Vibration Analyzer / Meter, Real Time Analyzer & Spectrum Analyzer		Shall meet the minimum requirements as specified below: Displacement – 0.1 to 100 mils (0.0001 to 0.1 inches) Velocity – 0.0005 to 10 in/sec Acceleration – 0.0001 to 30 G's Frequency Range – at least 1 to 1000 Hz (60 to 60,000 RPM) Frequency Resolution – at least 1.25 Hz (1 / 75 RPM) Minimum Lines of resolution ≥ 800 Detection - Peak, Peak-to-Peak, RMS FFT Windowing- Hanning at least Averaging – exponential or time and selectable to at least four averages			*4	12 Months
	Accelerometers / Transducer		Shall have the following minimum specifications: Sensitivity (± 20%) ≥ 100 mV/G typical Measurement Range = ± 20 G peak or greater Frequency Range = 2 to 3000 Hz at ± 3dB				12 Months

NOTES

- *1 CPT Option - choose only Option 1 OR Option 2 - along with required instrument for CPT certification (All instruments in any of the chosen is required)
- *2 FHT Orifice Calibrator - Choose only one.
- *3 Refer to Appendix A for complete instrumentation requirements for Sound Measurement (SM)
- *4 Firms may own or rent vibration equipment instrumentation for vibration certification
- *5 Calibration Requirement: Data logger calibration may be verified from a calibrated instrument with an associated calibration form showing calibration readings from both the calibrated instrument and the data logger. If a data logger is out of calibration and cannot be adjusted, the logger must be sent back to the factory for re-calibration or be replaced
- *6 Accuracy of an instrument is either stated as a percentage of full scale or as a percentage of the reading. NEBB has chosen percentage of reading due to it being a more accurate reading. Since a % of reading error becomes smaller as you read near the lowest part of the scale the instrument resolution and accuracy must be very small to maintain the accuracy of the reading. To overcome this the manufactures add a standard offset to the % of reading to maintain a reasonable accuracy at all locations on the scale. Normally for TAB readings we are never operating at the extreme ends of the scale so this has no impact on our work.
- *7 Calibrated per Industry/Manufacturer standards.
- *8 Firms may own or rent Temp Documentation Thermal Camera for RCx. BET Temp Documentation Thermal Camera must be owned.
- *9 Sound level meters with vibration integrators are NOT acceptable for NEBB approved instrumentation for making vibration measurements. That is, 1/3 octave or full octave vibration readings are not sufficient for NEBB Sound and Vibration work.
- *10 Vibration meters, which ONLY acquire and display the overall vibration level, displacement, velocity, and/or acceleration DO NOT meet NEBB minimum requirements for Vibration instrumentation. These types of meters may only be used if the contract documents specifically allow for their usage.

General Note: Some local jurisdictions require qualified electrician for any electrical readings

Calibration Requirement:

Instruments require a 3-point calibration, traceable to National Institute of Standards and Technology (NIST) or National Metrology Institute (NMI) unless otherwise noted.