

| Discipline<br>Function |                                    | RCx Required Instrumentation (Effective January 1, 2019) |           |     |      |            |       |                |            |            |            |            |             |                |             |     |                                 |   |           |       |                          |
|------------------------|------------------------------------|--|-----------|-----|------|------------|-------|----------------|------------|------------|------------|------------|-------------|----------------|-------------|-----|---------------------------------|---|-----------|-------|--------------------------|
|                        |                                    | 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                           |   |           |       |                          |
|                        |                                    |  |           |     |      |            |       |                |            |            |            |            | 0.10        | Pa             | <           | 250 | Pa                              |   | 12 Months |       |                          |
|                        |                                    |  |           |     |      |            |       |                |            |            |            |            | 10          | Pa             | >           | 250 | Pa                              |   |           |       |                          |
|                        | Air Velocity Instrument            | 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   | 1000       | l/s   | ±              | 5%         | of reading | ±          | 4          | l/s         | 1              | l/s         |     |                                 |   |           |       |                          |
| Temperature            | Air Meter with probe               | -20  | °F        | to  | 200  | °F         | ±     | 0.5%           | of reading | +          | 2.0        | °F         | 0.1         | °F             |             |     |                                 | 12 Months                               |           |       |                          |
|                        |                                    |  |           |     |      |            |       |                |            |            |            |            | 0.1         | °C             |             |     |                                 |   |           |       |                          |
|                        |                                    | Contact Meter with probe                                 | -20       | °F  | to   | 200        | °F    | ±              | 0.5%       | of reading | +          | 2.0        | °F          | 0.1            | °F          |     |                                 |   | 12 Months |       |                          |
|                        |                                    |  |           | -30 | °C   | to         | 100   | °C             |            | 0.5%       | of reading | +          | 1.0         | °C             | 0.1         | °C  |                                 |   |           |       |                          |
|                        | Immersion Meter with probe         | -20  | °F        | to  | 200  | °F         | ±     | 0.5%           | of reading | +          | 2.0        | °F         | 0.1         | °F             |             |     |                                 | 12 Months                               |           |       |                          |
|                        |                                    |  | -30       | °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%             | of reading |            |            |            | 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  | psi       | to  | 200  | psi        |       | 2%             | of reading | ±          | 1          | psi        | 0.01        | psi            |             |     |                                 | 12 Months                               |           |       |                          |
|                        |                                    |  |           |     |      |            |       |                |            |            |            |            | 0.1         | kPa            |             |     |                                 |   |           |       |                          |
|                        |                                    | Δ Pressure measurement                                   | 0         | psi | to   | 75         | psi   |                | 2%         | of reading | ±          | 1          | psi         | 0.01           | psi         |     |                                 |   | 12 Months |       |                          |
|                        |                                    |  |           | 0   | kPa  | to         | 520   | kPa            |            | 2%         | of reading | ±          | 7           | 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%             |            | +          | 5%         | full scale | 0.1         | FC             |             |     |                                 | Per Manufacturer's Requirements         |           |       |                          |
|                        |                                    |  |           | 0   | lx   | to         | 40000 | lx             | ±          | 3%         |            | +          | 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         | -15.7       | °C             | 0.1 @ 30 °C | &   |                                 | 160 x 120                               |           |       |                          |
|                        | Carbon Dioxide CO2                 | 0  | ppm       | to  | 2500 | ppm        | ±     | 5              | ppm        |            |            |            | 1           | ppm            |             |     |                                 | Qty = 1 Per Manufacturer's Requirements |           |       |                          |

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|----------------------------|------------------------------|--|---------|------|-------|---------|----------------|------------|------------|----|-----|----------------|------------|-------------|-------|-------|---------|---------------------------------|---------------------------------|
|                            |                              | RANGE  |         |      |       |         |                | ACCURACY   |            |    |     |                | RESOLUTION |             |       |       |         | Notes                           | Calibration Requirements        |
| Data Loggers               | Carbon Monoxide CO           | 0  | ppm     | to   | 1000  | ppm     | ±              | 5          | 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                      |
|                            |                              |  |         |      |       |         |                |            |            |    |     | 0.1            | in wc      | >           | 1     | in wc |         |                                 |                                 |
|                            |                              | 0  | Pa      | to   | 60    | Pa      | ±              | 1%         | full scale |    |     |                | 2.5        | Pa          | <     | 250   | Pa      | Qty = 1                         | See Note 5                      |
|                            |                              |  |         |      |       |         |                |            |            |    |     | 25             | Pa         | >           | 250   | Pa    |         |                                 |                                 |
| 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                      |                                 |
|                            |                              |  |         |      |       |         |                |            |            |    | 0.1 | 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    | ±       | 5              | °F         | @          | 77 | °F  | 0.1            | °F         |             |       |       | Qty = 8 | See Note 5                      |                                 |
|                            | -20                          | °C   | to      | 65   | °C    | ±       | 1%             | of reading | °C         |    |     | 0.1            | °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                    |                                 |
| RCx Instruments            | Thermal Infrared Thermometer | -4   | °F      | to   | 500   | °F      | ±              | 2%         | of reading |    |     |                | 0.1        | °F          |       |       |         |                                 | Per Manufacturer's Requirements |
|                            |                              | -20  | °C      | to   | 260   | °C      | ±              | 2%         | of reading |    |     |                | 0.1        | °C          |       |       |         |                                 |                                 |
|                            | TDS Meter                    | 0  | µ       | to   | 1000  | µ       | ±              | 2%         | full scale |    |     |                | 1.0%       |             |       |       |         |                                 | Per Manufacturer's Requirements |
|                            |                              | 0  | ppm     | to   | 5000  | ppm     | ±              | 2%         | full scale |    |     |                |            |             |       |       |         |                                 |                                 |
| Capacitance Moisture Meter | 0%                           | 0  | to      | 100% |       | ±       | 5%             |            |            |    |     | 1.25           | 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
- General Note:** Some local jurisdictions require qualified electrician for any electrical readings
- Calibration Requirement:** Instruments require NIST Traceable calibration or National Metrology Institutes (NMI) which exist in many countries maintaining primary measurements of standards; such as NPL in the UK, PTB in Germany and many others which are approved for those regions.