



## Quality Assurance Workshop Sunday, April 23, 2017

This workshop will provide participants with an introduction to quality assurance and quality control concepts within the context of radon measurements. QA/QC is an important tool for radon measurement professionals and laboratories who provide measurements to homeowners. In the event of a dispute, accurate QA/QC records provide the professional with documented evidence of accuracy and reliability of their measurements or services. In addition, QA/QC helps to increase confidence in the radon industry, and ensure that public health is protected by ensuring that buildings with elevated radon levels can be accurately identified, and verification tests for radon mitigation systems are consistent.

### Who Should Attend

For all radon measurement professionals or laboratory staff who are involved in performing radon measurements who:

- Conduct radon tests or calibrations
- Coordinate QA/QC activities
- Submit documentation to the C-NRPP for applications or renewals
- Plan radon surveys of large buildings or multiple dwellings

### Workshop Overview

This introductory session will cover the principles underlying quality control for radon measurements. It will review basic quality concepts, as well as construction and interpretation of control charts. Control charting is a graphical technique that allows laboratories to determine the extent of variation in their measurement results. The use of control charts is one of the tools that can be used to detect trends and analyze quality control data as required in the C-NRPP Quality Assurance Guide for Radon Test Devices.

### Learning Objectives

- Understand the principles and value of QA/QC and control charts for radon professionals
- Create and interpret basic control charts
- Troubleshoot control charts

### Workshop Content

- Refresher on basic statistical concepts
  - Distributions, means, standard deviations
- Concepts on Statistics of measurement
  - Accuracy vs. Precision
  - Statistical confidence
- Quality Control
  - Goal of statistical process control
  - Creating and Interpreting a control chart
- Review of C-NRPP Specifications on Quality
  - Duplicates/Blanks/Spikes
  - Calibration
- Troubleshooting
  - Non conformances and corrective action