

HP Survey Instrument Calibration & Selection



This 3-day short course provides practical training for personnel responsible for the selection and calibration of portable instrumentation and survey meters, as well as laboratory counters and air samplers. The course will concentrate on the applicable ANSI standards (ANSI N323A, B & C, ANSI N42.17 A, B& C) and other accepted guidance (eg. NUREG's, NCRP's IAEA Technical Reports, etc.) and how these standards apply to the routine operation of a calibration facility. Although the concentration is on the selection and calibration of portable instrumentation

(including air sampling and field counting instruments), the basic principles of calibrating laboratory equipment (whole body counters) will also be addressed. The course will also address the basic types of hand-held HP instruments, which to select in measuring various types and strengths of radiation fields, and the capabilities and limitations of each. Course topics include: principles of radiological instrument calibration; techniques to help simplify the writing of instrument calibration procedures; calculation of the Lower Limit of Detection (LLD); design of a calibration facility, calibration record keeping requirements; and qualifications and initial/continuing training of calibration technicians.

WHY THIS COURSE IS DIFFERENT ...

- This is the only available short course devoted almost entirely to the calibration of portable radiation protection instrumentation.
- This course is designed for persons responsible for portable radiation protection instrument calibration - most other courses are designed solely for personnel with fixed laboratory responsibilities.
- This course incorporates the latest information from HPS/ANSI standards (ANSI N42.17A, B & C, etc.) on the calibration of health physics instrumentation.
- The focus on ANSI industry standards, which are necessary for establishing the audit trail required with today's regulatory emphasis on proper QA, adequate procedures and traceability to national radiation standards (most nuclear power plants incorporate compliance with ANSI standards into their Tech Specs).
- Included will be recent guidance essential for proper beta calibration important with today's concerns about hot particle and other skin exposures.
- Other important standards (including ANSI/ANS and ANSI/IEEE) which also apply to radiation protection instrument calibration will be covered (e.g. record keeping requirements, personnel qualifications & training, and instrumentation).

Onsite Training

Looking for a cost effective way to train 5 or more people?



Onsite training is a great solution for many companies.

With training dollars being stretched more than ever, you get maximum value with an onsite course.

Save up to 50% over open enrollment courses...AND each course is customized to your specific needs.

Contact TMS for further details.

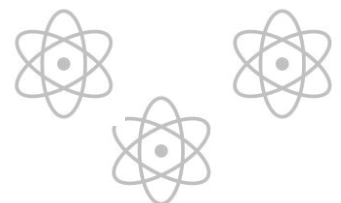


THE AMERICAN ACADEMY OF HEALTH PHYSICS (AAHP) HAS AWARDED THIS COURSE 32 CONTINUING EDUCATION CREDITS.

ASSIGNED ID NUMBER: 2011-00-007

FOR FURTHER INFORMATION OR ASSISTANCE, PLEASE CONTACT:

Technical Management Services
Phone: 1-860-738-2440
Fax: 1-860-738-9322
info@tmscourses.com
www.tmscourses.com



Topics

Basic Types of Hand-held Instruments and Smear Counters

Selecting Instruments to Measure Various Types and Strengths of Radiation Fields and Contamination

- Alpha
- Beta
- Gamma

Capabilities and Limitations of Each Type of Instrument

Statistics Fundamentals and Interpretation of Survey Results

Basic Types/Categories of Radiation Protection Instruments

- Gas filled detectors
- Scintillation detectors
- Semi-conductor detectors

ANSI N323 Radiation Protection Instrumentation Test and Calibration

- Functional requirements
- Quality control and quality assurance
- Calibration equipment
- Calibration facility

ANSI N42.17 Performance Specifications for Health Physics Instrumentation

- Portable instrumentation for use in normal environmental conditions
- Portable instrumentation for use in extreme environmental conditions
- Occupational airborne radioactivity monitoring instrumentation

Special Calibration Considerations and Conditions

- 10CFR20 impact on Instrument calibration
- Gamma dose equivalent calibration
- Beta dose equivalent calibration
- Neutron dose equivalent calibration
- Calibration of contamination monitors

Developing Procedures for Instrument Calibration

- Development of common formats for similar instruments
- Use of the standard procedure INPO format
- Review of manufacturer's technical literature
- Intended use of instrument
- Procedure "walk-through" and review/revision

Facilities, Equipment and Sources for Calibrations

- General considerations
- Measuring and test equipment
- Radiation sources
- Radiation source characterization
- Calibration frequency
- Laboratory accreditation

Recordkeeping, Personnel Qualifications and Continuing Education Guidelines

- ANSI N13.6-1999
- ANSI/ANS 3.1-1999

Summary and Conclusion

See What Others Have Said About TMS Courses

"Very effective and practical presentation. The right amount of detail."

"Excellent instructor. Good examples of situations from instructor's experiences."

"This course provided me with practical ideas that I can use on my day-to-day job."

"Good presentation style. Worked well with class."

"This was one of the best courses I have ever taken. The instructor was clear and precise. Case studies and job experiences shared with the class were excellent learning tools."

"Very enjoyable. Helpful course."