

# Multi-Agency Radiological Laboratory Analytical Protocols (MARLAP) Practical Training on MARLAP Part I

**What:** MARLAP Part I is intended for planners and managers of radioanalytical projects and laboratory personnel who support them. Part I provides the basic framework of the directed planning process, including project planning, key issues to be considered during the development of analytical protocol specifications, developing measurement quality objectives, understanding the qualitative and quantitative components of method uncertainty, project planning documents and their significance, obtaining laboratory services, selecting and applying analytical methods, evaluating methods and laboratories, verifying and validating radiochemical data, and assessing data quality.

This three-day course will cover all aspects of radiochemical project planning and will provide practical examples, exercises, and case studies. The course will conclude with a comprehensive exercise where participants will apply what they learned to evaluate indoor and ambient air quality following the release of Am-241 from a radiological dispersion device (RDD, or "dirty bomb").

**Who Should Attend:** Project Managers and planners for radiation sites and facilities working on projects requiring radioanalytical data for decisionmaking; and laboratory personnel working on radioanalytical projects

**When:** August 18 – 20, 2009

**New Dates –  
Delayed one week!**

8:00 am to 4:45 pm Tuesday,  
8:15 am to 4:45 pm Wednesday, and  
8:00 am to 4:15 pm Thursday

**Where:** U.S. Environmental Protection Agency Region 3  
1650 Arch Street  
Philadelphia, PA 19103  
*EPA Region 3 is a secure facility. Visitors who do not have an EPA identification card must be pre-registered and will need to check with the guards, who will have your name on an approved entry list.*

**Directions and Visitor Information**  
Sally Pascal  
215-814-3126  
[Pascal.Sally@epa.gov](mailto:Pascal.Sally@epa.gov)  
<http://www.epa.gov/region03/direct.htm>

**To Register:** (Registration Deadline <http://www.trainex.org> July 27, 2009)

**For questions about the training**  
John Griggs  
334-270-3450  
[Griggs.John@epa.gov](mailto:Griggs.John@epa.gov)

**Cost:** FREE!

## Instructors

**Carl Gogolak**, Ph.D., is a physicist with more than 37 years experience. He was a major contributor to both MARSSIM and MARLAP, for which he authored or co-authored several chapters and appendices dealing with uncertainty, the gray region, and data quality. He was an original developer and instructor on previous versions of the MARLAP Part I training course prior to his retirement from the Environmental Measurements Laboratory of the U.S. Department of Energy and later the Department of Homeland Security.

**Robert Litman**, Ph.D., has been a researcher and practitioner of nuclear and radiochemical analysis for the past 35 years. He is well respected in the nuclear power industry as a specialist in radiochemistry and instrumentation. Dr. Litman co-authored two chapters of MARLAP. His particular areas of expertise are gamma spectroscopy and radiochemical separations.

**Keith McCroan**, Ph.D., is an information technology specialist with the National Air and Radiation Environmental Laboratory of the U.S. Environmental Protection Agency, where he has worked since 1991. Although his formal education was in mathematics and computer science, he has become better known among radiochemists as a statistician and metrologist. Dr. McCroan was the principal author of five chapters and appendices of MARLAP, including the chapters on measurement uncertainty and detection and quantification limits, and was a contributor to four other chapters.

**David E. McCurdy**, Ph.D., is a nationally recognized expert in radioanalytical method development, and he has 40 years of experience in the areas of radiometry, radiochemical method development, radiobioassay, radiological laboratory operations, environmental monitoring and pathway analysis. He was the principal author or co-author of seven chapters and appendices of MARLAP.