



# Nevada Technicals Associates

Radiation Safety Training

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# Nevada Technical Associates

Radiation Safety Training

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## 2016 Course Catalog

Radiation Safety Officer  
Radiation Safety Officer Refresher  
Transportation and Packaging  
of Radioactive Materials  
Radiation Detection Instruments:  
Test and Calibration  
Liquid Scintillation Counting  
and Alpha Counting  
NRRPT Exam Review  
Environmental Radiochemistry  
Management of Personnel  
Dosimetry Programs  
Gamma Spectroscopy

## Onsite and Custom Courses



*Do you need custom training at your facility?  
Or do you simply want us to come to you?*

In addition to offering our standard set of courses anywhere in the world, NTA is also eager to develop courses to meet your training needs and to tailor them to your specifications – including training materials in either hardcopy or digital form (or both). Some classes developed by NTA for previous clients include radiation safety aspects of industrial radiography, radiological and nuclear terrorism, medical radiation safety, naturally-occurring radioactivity, well logging, and many more. Tell us what you're looking for and what we can do to help you meet your training needs.

**Available Onsite Courses include but are not limited to:**

- Radiation Safety Officer
- Radiation Safety Officer Refresher
- Transportation and Packaging of Radioactive Materials
- Radiation Detection Instruments: Test and Calibration
- Liquid Scintillation Counting and Alpha Counting
- NRRPT Exam Review
- Environmental Radiochemistry
- Management of Personnel Dosimetry Programs
- Gamma Spectroscopy
- Radiological Emergency Response
- Radiological and Nuclear Terrorism
- Naturally Occurring Radioactive Materials
- Radiation Safety for Industrial Radiography
- Diagnostic and Therapeutic Nuclear Medicine

## Consulting Services



Nevada Technical Associates provides consulting services to address virtually any of your radiation safety concerns. This includes problem-solving, preparing for regulatory inspections or responding to inspection reports, helping you to apply for and amend your radioactive materials license, developing radiation safety policies and procedures, and much more. Nevada Technical Associates experts have consulted for organizations that include the Canadian Army, the Panama Canal Authority, and military contractors – in addition to firms involved in waste management, the natural gas and petroleum industries, jewelry firms, aerospace and metallurgical firms, several major hospitals and universities, and more.

*Whatever your problem or needs, NTA can help you out!*

# Radiation Safety Officer

The Radiation Safety Officer Course is designed to provide the technical and practical information needed to prepare a person to be an effective Radiation Safety Officer. It will also be useful as general introductory training for anyone who works with radioactive materials or who may be required to be an alternate Radiation Safety Officer. Some prior knowledge of algebra and science is necessary to get the most benefit from the course.

Topics to be covered in our RSO course include atomic structure, properties of ionizing radiation, shielding, radiation and biological safety terms and units, biological effects of radiation exposure, radiation detection and measurement, state and federal regulations, dosimetry, emergency procedures, records/documentation and transportation regulations.

A wide range of industrial, academic, and medical users attend this course from diverse fields including the Biomedical, Uranium Mining, and biotech industries employing applications such as industrial gauges, portable gauges, x-ray devices, and other devices.



*Visit our website to register online today.*

## Course Dates & Locations | The fee for this course is \$1,450.00

### Western:

**Las Vegas, NV:** Jan 18–22, Mar 14–18, May 9–13,  
Sept 5–9, Nov 14–18

**San Jose, CA:** Feb 29–Mar 4

**No. California:** Sep 26–30

**So. California:** Jun 13–17, Nov 28–Dec 2

**Newport Beach, CA:** Oct 24–28

### Southern:

**Atlanta, GA:** Jan 18–22, Apr 4–8, Jul 25–29,  
Nov 7–11

**Arlington, TX:** Feb 8–12, Sep 19–23

**Nashville, TN:** Jun 20–24

**New Orleans, LA:** Dec 5–9

**Orlando, FL:** Apr 11–15, Sep 12–16

### Central & Eastern:

**Columbus, OH:** May 16–20

**Denver, CO:** Mar 21–25, Oct 3–7

Continuing Education Credits—Approved for Continuing Units by the American Academy of Health Physics, The American Society of Radiologic Technicians and the American Board of Industrial Hygiene. For the American Academy of Health Physics, the units granted are 32 C.E. Units, for the ASRT, it is 30.5 units and for the ABIH, it is 4.5 CM points. We will apply for Continuing Education Credits from other organizations if you will contact us at least 45 days prior to taking the course. Approval from other organizations is usually easy to get but some require that application be made prior to the course.

# Radiation Safety Officer Refresher

This Radiation Safety Officer Refresher course is for Radiation Safety Officers, Assistant Radiation Safety Officers and others who need a technical refresher course. Topics to be covered include a review of radiation fundamentals,

regulations, instruments, licensing, amendments, audits, dosimetry, training, wastes, decommissioning, emergency response, and maintaining a radiation safety program.

*Visit our website to register online today.*

## Course Dates & Locations | The fee for this course is \$800.00

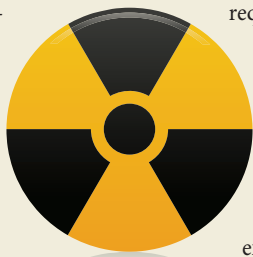
**Atlanta, GA:** Mar 14–15, Aug 8–9 // **Las Vegas, NV:** May 23–24, Nov 7–8

*This course is approved for 16 continuing education units from the AAHP*

# Transportation & Packaging of Radioactive Material

The Transportation of Radioactive Materials course is designed for Radiation Safety Officers, Safety Officers, Technicians, Managers, and others who may be involved in transporting radioactive materials or in preparing radioactive materials for transport.

This course will cover the applicable 49 CFR DOT and 10 CFR NRC transportation of radioactive material regulations. The course will also cover DOT 49 CFR Parts 170–189 with emphasis on Parts 172–178 and 10 CFR 71. These regulations cover hazardous material classification, hazardous waste, labeling, types of packaging and containers, packaging and container limits, radiation level standards, and reporting and record keeping



requirements. Fissile and Type B materials are not covered in detail.

The course will also cover 10 CFR 61 (NRC Land Disposal of Radioactive Material) and related requirements from 10 CFR 19, 20 and 40. The course includes package and shipping document preparation exercises.

The course includes a section on regulations related to the air transport of radioactive dangerous goods. The training will be based on the International Air Transport Association (IATA) Dangerous Goods Regulations (DGR). Air cargo carriers are now requiring proof that the shipper has completed IATA-based training before they will accept packages for air shipment.

*Visit our website to register online today.*

**Course Dates & Locations | The fee for this course is \$950.00**

**Las Vegas, NV:** May 25–27, Nov 9–11

Continuing Education Credits—This course is approved for continuing education units from the American Academy of Health Physics (16 units).

# Radiation Detection Instruments: Test and Calibration

This two and a half day course focuses on factors affecting the performance of portable and laboratory radiation detection instruments. The course is designed for radiation detection users, supervisors and managers of users, and quality assurance personnel with responsibilities related to instrument use. This course is unique in that it emphasizes user verification of the performance aspects of detection instruments. The course addresses instrument selection, factors influencing proper calibration and operation, variables in the measurements made by an instrument, and the frequency and type of

performance checks.

The course is based on applicable current regulations such as 10 CFRs, ANSI Standards, NUREGS, NCRPs, ICRP/ICRU and IEEE transactions. The performance standards set forth in ANSI N4217A are reviewed as a basis for the discussion on performance checks. NCRP-112 and ICRU-47, both of which address calibration and use of instruments to measure dose equivalent-related quantities, are the principal support reports for the course.

*Visit our website to register online today.*

**Course Dates & Locations | The fee for this course is \$950.00**

**Atlanta, GA:** April 27–29, Aug 29–31

Continuing Education Credits—This course has been approved for 16 continuing education units by the American Academy of Health Physics. We will also apply for units from any other organization upon request.

## Liquid Scintillation Counting & Alpha Counting

The Liquid Scintillation Counting and Alpha Counting course is designed as an introduction to liquid scintillation counting and alpha counting and is intended for radiochemists, technicians and others who will be doing this work in the laboratory. It will also be useful for quality assurance officers, radiation safety officers and data validators who may need to understand

measurements produced by liquid scintillation counting and alpha counting. Approximately half of the course will be devoted to classroom instruction and the remaining half will be spent on laboratory exercises. Special attention will be given to the quality assurance aspects of both methods.

*Visit our website to register online today.*

**Course Dates & Locations | The fee for this course is \$1,500.00**

**Atlanta, GA:** May 9–13, Nov 21–25

## NRRPT Exam Review

This course is perfect for those who want to prepare for the official NRRPT Exam. The NRRPT Exam Review Course is designed for individuals preparing to take the examination administered by the National Registry of Radiation Protection Technologists (NRRPT).

The course will also be valuable for others who require an understanding of radiation protection practices and regulations. This course covers the three general categories covered by the NRRPT examination. These are: Applied Radiation Protection, Detection and Measurements, and Fundamentals.

Daily quizzes and practice examinations provide additional practice on questions similar to those found in the NRRPT examination. The textbook for the course is the well known book by Daniel Gollnick. Each student will receive a copy of the book at no extra cost.

An optional 2-day math review will be given on the Saturday and Sunday before the start of the NRRPT Exam Review Course.

The NRRPT exam will be administered by the NRRPT organization the day after our Exam Review course ends. They will conduct their exams on Feb. 20, 2016 and Aug. 13, 2016 in Las Vegas, NV.

**Course Dates & Locations | The fee for this course is \$1,240.00**

**Las Vegas, NV:** Feb 15–19, Aug 8–12 // **Optional math review dates:** Feb 13–14, Aug 6–7

## Environmental Radiochemistry

The Environmental Radiochemistry course is designed for those who are beginning careers in radiochemistry and for more advanced radiochemists who may need a refresher course. The course emphasizes the analytical aspects of radiochemistry. The course should also be useful to quality assurance officers, data validators and others who may need an understanding of radiochemistry in their work. Topics to be covered include introductory material about the atomic nucleus, radioactive decay processes,

and interaction of radiation with matter; and counting techniques such as gamma spectroscopy, alpha spectroscopy, liquid scintillation counting and gas flow counting. The statistical aspects of radioactive decay, and common problems in the radiochemical laboratory are also discussed. A model quality assurance plan for a radiochemical laboratory is presented and common quality assurance problems are discussed with the class. Student exercises are an important part of the course.

**Course Dates & Locations | The fee for this course is \$1,500.00**

**Atlanta, GA:** Feb 22–26, Jul 11–15, Oct 10–14

# Management of Personnel Dosimetry Programs

This course is intended for individuals whose jobs include the management of personnel dosimetry programs for medical, academic, biomedical, veterinary, dental, pharmaceutical, industrial, NDT, well logging and other organizations that employ occupationally exposed radiation workers. Individuals in charge of personnel dosimetry programs may include nuclear medicine and radiology technologists, veterinary technologists, physics instructors, radiochemical production managers, or radiopharmaceutical technicians. The course is

also suitable for those responsible for monitoring radiation exposure of non-occupationally exposed workers who may receive radiation exposure in the course of their work. Examples are emergency response professionals including fire, police, and paramedics. The first part of the course focuses on the technical and regulatory aspects of personnel monitoring. The second part of the course includes what you need to know to effectively manage a personnel dosimetry program.

*Visit our website to register online today.*

## Topics covered include:

- Who Should Wear Personnel Dosimeters
- Legal Considerations
- Regulatory Limits
- ALARA Concept
- Radiation Sources
- Radiation Producing Machines
- Dose Limits
- Active and Passive Monitoring
- Dosimeter Technology
- Badge Types

## Topics covered in the practical part of the course include:

- Dosimetry Program Management
- Selecting Dosimeter Types
- Shipping and Storing Personnel Dosimeters
- Wearing Badges Properly
- Understanding Dosimetry Reports
- Dose Investigations, Assignments, and Documentation
- How Radiation Dosimetry Services Work
- DIY Quality Assurance

**Course Dates & Locations | The fee for this course is \$800.00**

**Las Vegas, NV:** Aug 25–26

# Gamma Spectroscopy

The Gamma Spectroscopy Course is designed as an introduction to gamma spectroscopy and is intended for radiochemists, technicians and others who will be doing routine gamma spectroscopy as well as quality assurance officers and data validators who may have a need to understand gamma spectroscopy measure-

ments. Approximately 60% of the course will be devoted to lectures and the remaining time will be spent on hands-on work in the counting room. Special attention will be given to calibration and the quality assurance aspects of gamma spectroscopy.

*Visit our website to register online today.*

**Course Dates & Locations | The fee for this course is \$1,500.00**

**Atlanta, GA:** Mar 21–25, Sep 26–30

# Radiation Safety Videos & DVDs

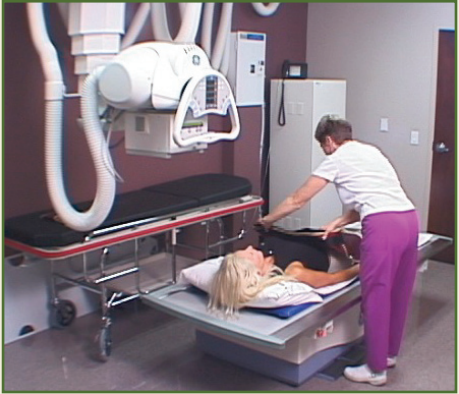
To view sample clips for each of the Radiation Safety Videos please visit: <http://www.nevadatechnical.com/video.html>

These training programs are available in both VHS and DVD format, and each program comes with 10 trainee certificates, 1 course outline, and 1 reproducible exam. We are confident that these programs will become a valuable supplement for your existing safety training program.

For more information and to view clips, please go to the web page link given above.

## Our series on Radiation Safety includes the following titles:

Radiation Safety for Medical Facilities,  
Radiation Safety for Sealed Sources  
Radiation Safety for  
X-Ray Generating Devices  
Laboratory Radiation Safety  
Radiation Safety for Non-Rad workers  
Practical Radiation Safety  
Practical Radiation Safety and Radiography



Radiation & Pregnancy for Patients  
Radiation & Pregnancy for  
Healthcare Workers  
Fetal Effects of Diagnostic  
Radiation Exposure  
Radiation Safety for First Responders  
Medical Effects of Diagnostic  
& Therapeutic Radiation  
Radiation Safety Refresher

## Software for Radiation Safety

**Radiation Safety Officer Training for Industrial Radiographers - CD-Rom Course w/Manual  
\$695.00 – RSO-IR-CD1**

The Radiation Safety Officer (RSO) course is a CD-ROM based software for Industrial Radiography written by Dr. Donald Hastings. It is a self-study course for RSO candidates for x-ray, gamma and neutron radiography. The course includes a CD-ROM or Flash Drive together with the Nevada Technical Associates (NTA) "Radiation Safety Officer" manual. The course is based on a 40 hour RSO course taught by the author. Topics are based on the NTA RSO course and on the author's experience with industrial x-ray, gamma and neutron radiography. The course has multiple choice practice questions at the end of each lesson. There is a final exam from randomly chosen questions that the RSO candidate must pass to obtain the RSO certificate. If you would prefer to download the software instead of having it shipped to you that option is now available.