



# New Mexico Center for Nuclear Security



## Advanced Hands-On Neutron Nondestructive Assay

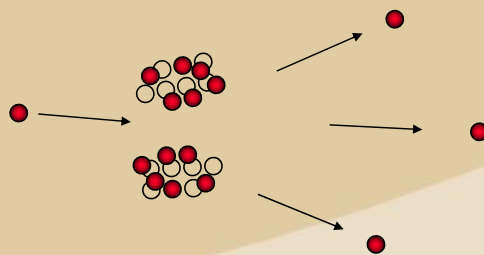
### COURSE DESCRIPTION

- This training course covers a wide range of neutron based measurement techniques for material control and accounting (MC&A) purposes.
- The course is composed of lectures that describe underlying theories followed by hands-on laboratory exercises covering measurement techniques.

#### NDA Concepts Covered:

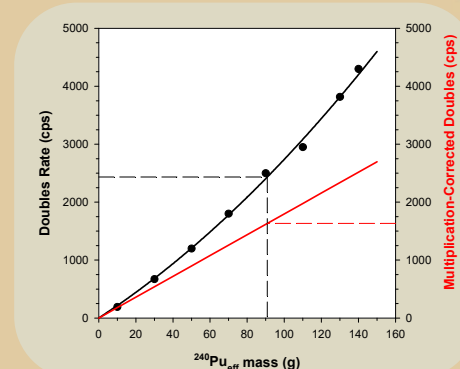
- ✓ Fundamental principles of neutron detection
- ✓ Passive neutron coincidence counting of bulk plutonium
- ✓ Multiplicity counting of bulk plutonium
- ✓ Active Neutron Coincidence Counting of bulk uranium and fresh fuel assemblies.
- ✓ Waste characterization using neutron counting.

*NDA Equipment Covered: NMC, AWCC, UNCL, Add-a-source*



### Course Objective

To provide the participant with in-depth knowledge of the major neutron NDA techniques used in domestically for MC&A measurements of bulk special nuclear material (SNM) and in international safeguards.



### Additional Information

Course Length: 4.5 days

Target Audience: Individuals that perform, manage, or supervise neutron based nondestructive assay (NDA) techniques. Auditors, regulators, and policy makers may also benefit from attending this course.