Material Control and Accountability (MC&A) Training

Course Description

- This training seeks to deepen understanding of best practices behind the control and accountability of nuclear materials and how to integrate these into a facility.
- Provides instruction on the concepts of MC&A:
  - Tracking and verifying nuclear material
  - Nuclear material measurements
  - Maintaining records and reports
  - Data analysis to account for and detect loss of nuclear material
  - Investigation and resolution of apparent losses of nuclear materials
  - Assessment and testing of existing MC&A controls
- All instruction is focused on the protection of nuclear materials assets, providing timely detections of material loss, using a graded safeguards approach to meet national and international requirements and agreements.
- Instruction is in the form of classroom lectures on best practices, as well as tabletop exercises focusing on the application of MC&A elements and objectives.
- Course Duration: 3 days

End Goal

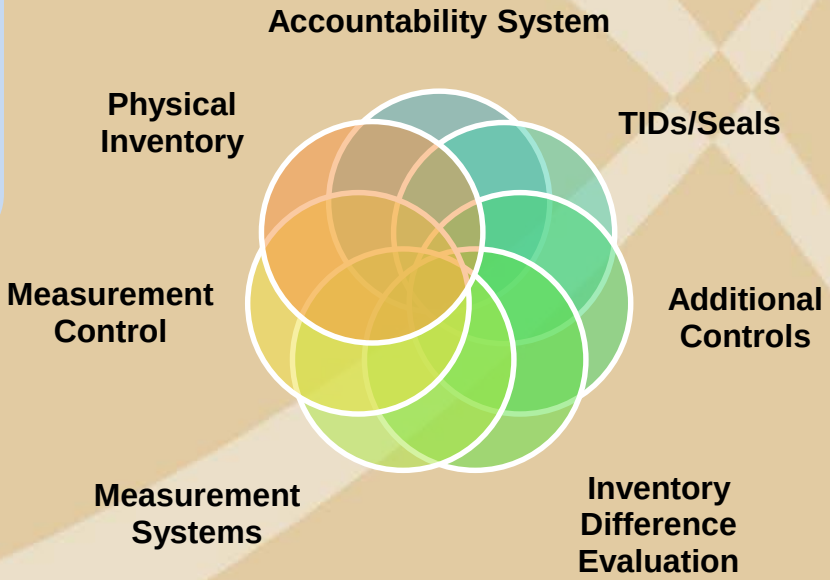
Mitigating the risk of material loss that could be used in a nuclear weapon through physical deterrents and statistical accounting techniques.

MC&A Core Elements

Material Control: *The use of controls (physical and procedural) and monitoring to prevent or detect loss of nuclear materials.*

Material Accounting: *Statistical and accounting measures to maintain knowledge of the quantity and pedigree of nuclear material.*

MC&A System Integration



Material Control and Accountability (MC&A) Training

Material Control Elements

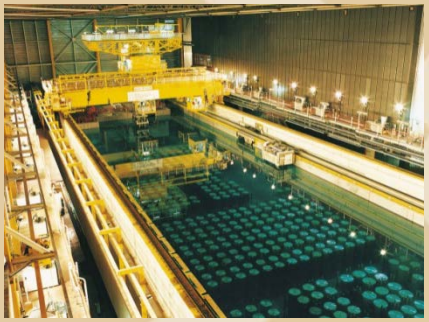
- Access Controls
- Material Surveillance
- Material Containment
- Daily Administrative Checks
- Tamper Indicating Devices (TID) Programs
- SNM Portal Monitoring
- Waste Monitoring

Material Accounting Elements

- Material Accounting Systems
- Physical Inventory Program
- Measurement and Measurement Control Programs
- Material Transfers
- Material Control Indicators Programs
- Shipper/Received Difference Programs

MC&A Course Goals

Learning the core elements of Material Control and Accountability and how to apply them to assess and test existing systems or to set up new systems.



Assessment of MC&A Program

- Detection of anomalous activities
- Material transfer procedures
- Quality verification of accountability record data
- Operational process assessment
- Insider threat mitigation

Establishment of Testing Program to

- Promote continuous improvement in protection systems
- Produce data for lifecycle management
- Provide data for financial analysis for continued support/upgrades
- Promote quality by supporting improvement initiatives
- Integrate MC&A and physical protection

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