

Radiological Control Technician Training

Part 1

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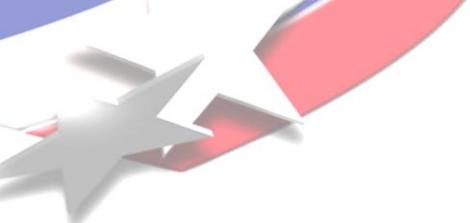
Agenda

- **What is a Radiological Control Technician (RCT)?**
- **Planned RCT Part 1 Training Program**
- **Overview of Training Syllabus**



What is an RCT?

- An RCT is a trained & qualified Health Physics Technician
- An RCT is the person with the training and experience to:
 - Quantify radiological hazards
 - Prescribe radiological controls
 - Conduct radiological surveys
- RCTs interpret and verify data from radiological surveys and monitoring. With additional training, they respond to radiological emergencies.
- In the U.S., an RCT is a job title



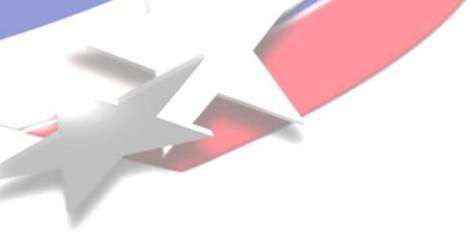
What is an RCT?





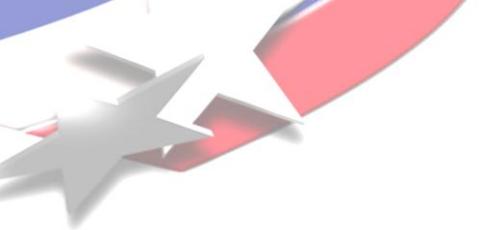
What is an RCT?

- In U.S. system, RCTs are qualified after about 12 weeks of training and passing written and oral exams
- Mr. Brian Thomson leads Sandia Laboratories' RCT training and qualification program
- Brian and his staff have created a 4-week RCT Part 1 training program, and he will be leading the training



RCT Part 1 Training Program

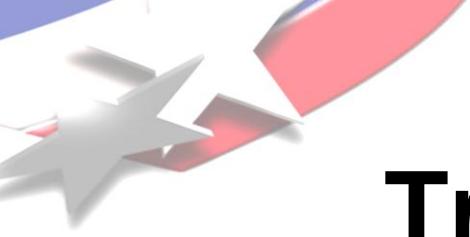
- **3 - 28 February, 2013 (tentative)**
- **Amman, Jordan**
- **Openings for:**
 - 8 persons MoST
 - 2 persons RPC
 - 2 persons IRSRA
 - 2 persons Kyrgyzstan
- **Cost-Free to participants**



RCT Part 1 Training Program

- Hosted: IAEA (Eric Howell)
- Training facilities: Jordan Nuclear Regulatory Commission
- Instructors: Sandia National Laboratories
- Funding instructors: USDoS (D. Kenagy) & USNRC (E. Stahl)
- Funding Iraqi travel
 - IAEA TC – 8 MoST
 - US NRC (via Sandia) - 2 RPC and 2 IRSRA
 - IAEA (Russell Edge) - 2 from Kyrgyzstan

TEAM EFFORT !



Training Agenda Overview

Week 1:

- Welcome & Introductions
- Fundamental Academic Training
 - Lesson 1.01, *Basic Mathematics and Algebra*
 - Lesson 1.02, *Unit Analysis & Conversion*
 - Lesson 1.03, *Physical Science*
 - Lesson 1.04, *Nuclear Physics*
 - Lesson 1.05, *Sources of Radiation*
 - Lesson 1.06, *Radioactivity & Radioactive Decay*
 - Lesson 1.07, *Interactions of Radiation with Matter*

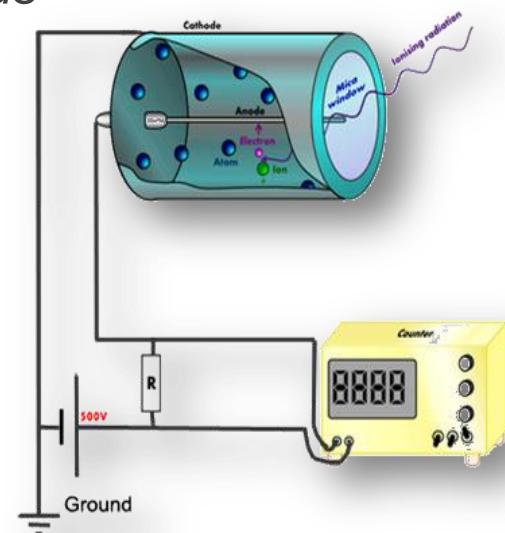


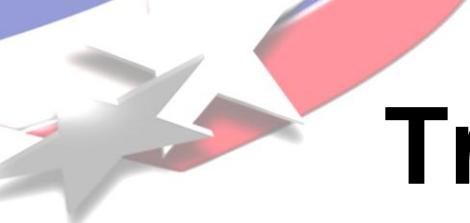


Training Agenda Overview (Cont.)

Week 2:

- Fundamental Academic Training (Cont.)
 - Lesson 1.08, *Biological Effects of Radiation*
 - Lesson 1.09, *Radiological Protection Standards*
 - Lesson 1.10, *ALARA*
 - Lesson 1.11, *External Exposure Control*
 - Lesson 1.12, *Internal Exposure Control*
 - Lesson 1.13, *Radiation Detector Theory*
- Advanced Academic Training
 - Lesson 2.01, *Documentation*



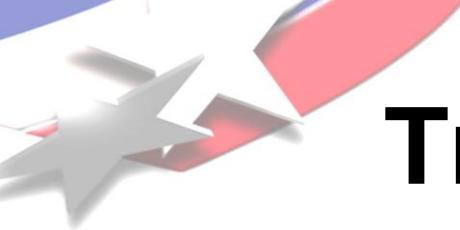


Training Agenda Overview (Cont.)

Week 3:

- Advanced Academic Training (Cont.)
 - Lesson 2.03, *Statistics*
 - Lesson 2.04, *Dosimetry*
 - Lesson 2.05, *Contamination Control*
 - Lesson 2.08, *Radioactive Source Control*
 - Lesson 2.16, *Radiation Survey Instruments*
 - Lesson 2.17, *Contamination Survey Instruments*



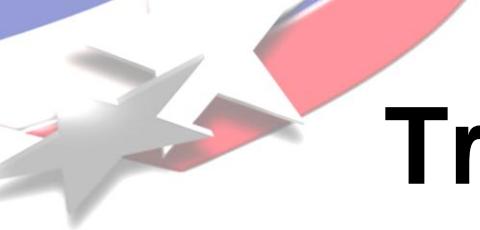


Training Agenda Overview (Cont.)

Week 4:

- Job Performance Measures
 - *Performance test and operation of radiation survey instruments*
 - *Perform a radiation survey*
 - *Performance test and operation of contamination survey instruments*
 - *Perform a contamination survey*



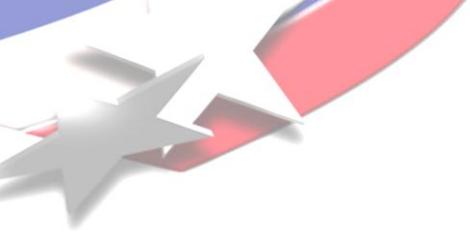


Training Agenda Overview (Cont.)

Week 4 (Cont.):

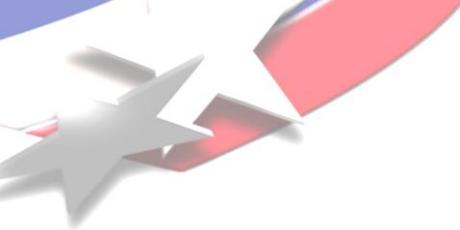
- Job Performance Measures
 - *Performance test and operation of air sampling & monitoring instruments*
 - *Post radiological area to reflect associated hazards*
- *Inspect, don, use, and remove protective clothing*
- Course review/critique and discussions
- Part I Training completion ceremony and closing remarks

Time Permitting



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- **IAEA will send invitation letters**



Thank You