Certified Training for Radioactive Source Security Management

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World Institute for Nuclear Security

ETRAP Conference
Outline

- About WINS
- The Threat
- The WINS Academy
- Next Steps
WINS Vision and Mission

All nuclear and other radiological materials and facilities are effectively secured by demonstrably competent professionals applying best practice to achieve operational excellence.

To be the leader in knowledge exchange, professional development and certification for nuclear security management.
WINS Membership

3,872 Members in 122 Countries
I have modified approaches to security because of WINS.
WINS Programme

**Sharing Operational Experience**
- Workshops, Roundtables, Webinars & Membership Forum

**Knowledge Centre**
- Best Practice Guides, Special Reports, Competency Framework

**Training and Certification**
- Online and Blended Learning, Certification Exams, Alumni Network

**Evaluation**
- Self-Assessment Tools, Organisational Competency Assessment, Peer Reviews
Facilitated Workshops & Webinars
WINS Publications on the Security of Radioactive Sources

- 5.1 Security of High Activity Radioactive Sources
- 5.2 Security of Well Logging Radioactive Sources
- 5.3 Security of Industrial Radiography Sources
- 5.4 Security of Radioactive Sources Used in Medical Applications
- 5.5 Security Management of Disused Radioactive Sources
All Guides have a Self Assessment Section

THE “RIGHT” Answer IS ALWAYS “YES”
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We Provide a Security Management “Maturity Scale”
Permanent Threat Reduction

Considerations for the Adoption of Alternative Technologies to Replace Radioactive Sources

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SECURITY OF SOURCES

CONTROL OF SOURCES

• Security by design
• Alternative technologies

Front end

Use and storage

Transport

End of life

• Inventory
• Physical security
• Management
• Culture and sustainability

• Tracking
• Access delay
• Communication
• Response

• Recycling & Re-use
• Interim storage
• Disposal

OPERATOR LEADERSHIP

STATE AND REGULATORY OVERSIGHT

• Use and storage
• Management
• Culture and sustainability

• Inventory
• Physical security
• Management
• Culture and sustainability

• Tracking
• Access delay
• Communication
• Response

• Recycling & Re-use
• Interim storage
• Disposal

• Security by design
• Alternative technologies
CNS Global Incidents and Trafficking Database 2013-2016

- Application
  - Industrial: 320
  - Medical: 102
  - Unknown: 80
  - Signaling (signs): 66
  - N/A: 45
  - Academic/Research: 24
  - Other/Niche application: 15
  - Aerospace: 14
  - Nuclear: 11
  - Business: 6

- Type of Incident
  - Loss: 252
  - Stolen/Theft: 170
  - Contaminated material: 77
  - Delivery failure/Misrouting: 66
  - Improper disposal: 52
  - Unknown: 38
  - Unauthorized possession: 28

Search for incidents geographically using the magnifying glass. Click the options above to filter the data.
Outline

- About WINS
- The Threat
- The WINS Academy
- Recommendations and Conclusions
Ensure that prime responsibility for the security of nuclear material, other radioactive material, associated facilities, associated activities, sensitive information and sensitive information assets rests with the authorized persons.
Who Needs to be Demonstrably Competent?

IAEA Guidance

Ensure that prime responsibility for the security of nuclear material, other radioactive material, associated facilities, associated activities, sensitive information and sensitive information assets rests with the authorized persons.
The WINS Academy

Textbook
Radioactive Source Security Management
Certified Professional Development Programme
Authors of Radioactive Source Security Module

Chris Englefield, Editor, Radiation Regulator
Ed Waller, Associate Dean, University of Ontario Institute of Technology
Gregory Herdes, Principal Technical Advisor, US NNSA
Bernie Weiss, WINS Consultant
UNIT 1: THE CHALLENGE
   1.1 A Brief History
   1.2 Benefits of Radioactive Sources
   1.3 Categorisation and Risks
   1.4 The Threat Landscape

UNIT 2: STAKEHOLDER RESPONSIBILITIES
   2.1 Global Responsibilities
   2.2 State Responsibilities
   2.3 Licensee Responsibilities

UNIT 3: ESSENTIAL ELEMENTS OF SECURITY
   3.1 Principles of Physical Security
   3.2 Common Security Systems
   3.3 Transport Security
   3.4 Alternative Technologies

UNIT 4: THE RADIOACTIVE SOURCE SECURITY PROGRAMME
   4.1 The Security Policy and Programme
   4.2 The Security Plan
   4.3 Security Culture

UNIT 5: PUTTING IT INTO PRACTICE

COURSE SUMMARY

APPENDIX I: UNDERSTANDING A/D RATIOS

APPENDIX II: ACRONYMS & KEY DEFINITIONS

APPENDIX III: BIBLIOGRAPHY
Module Delivery Online + Proctored Examinations

Foundation Module
Examination
Elective Module
Examination

5,100+ accredited test centres in over 180 countries
Academy Participants – May 2017

900 Enrolled from
80+ Countries

225+ Certified Nuclear Security Professionals
"From all my security studies, I have never had such a systematic, well organised, comprehensive yet concise, type of module that gives you the whole perspective of an industry in one course, for all stakeholders."

Mr. Mafihla Maleka
Physical Security Manager South African Nuclear Energy Corporation (NECSA)
Measuring Impact – Alumni Network
Vienna, Austria, December 14, 2016 – The World Institute for Nuclear Security (WINS) is pleased to announce that on 1 December 2016 the Government of Canada submitted a Joint Statement on Certified Training for Nuclear Security Management to the Secretariat of the International Atomic Energy Agency (IAEA). The Statement acknowledges the international recognition of the need for nuclear security training, education and certification and commits to providing advocacy, peer review, contributions and other means as necessary to support the WINS Academy’s efforts to expand its international certification programme.
Next Steps

- Expansion of IAEA INFCIRC/901 to additional States and formation of action plans.
- Pilot blended online and in-person training on radioactive source security with our partners Mexico and Canada.
- Development of peer review for medical sources.
Thank you

Learn more at
www.wins.org

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