



The Canadian Approach to Effective Safety and Security Interfacing

Canadian Nuclear Society
Annual Conference,
June 5, 2017



Ramzi Jammal
Executive Vice-President and
Chief Regulatory Operations Officer
Canadian Nuclear Safety Commission

Presented by Jason Cameron, Vice-President
Regulatory Affairs Branch

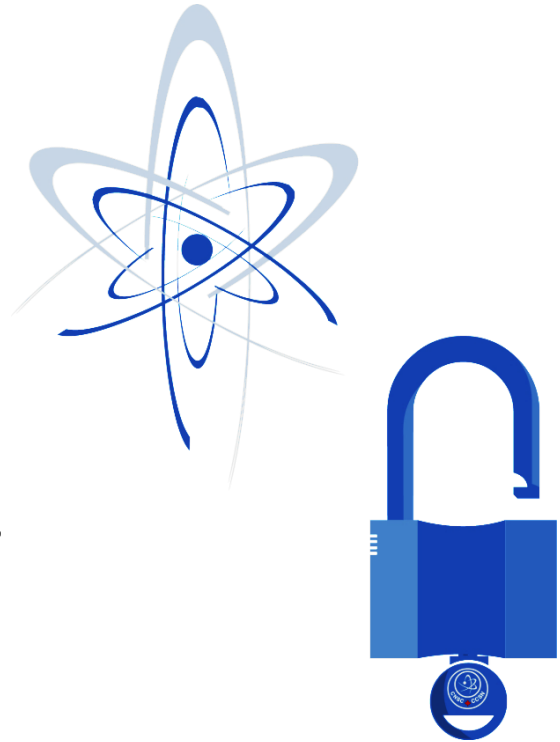




Canadian Nuclear Society Annual Conference
June 5, 2017

Table of Contents

- The Canadian context
- Canadian safety and security practices
- Effective interfacing
- What works well
- Fostering effective safety and security interfaces
- Lessons learned from the IPPAS mission
- Challenges and path forward





Canadian Nuclear Society Annual Conference
June 5, 2017

The Canadian Context

- Canada has a broad cradle-to-grave nuclear program that includes mining, milling, processing, nuclear power plants and waste storage (fuel and other materials)
- Canada is one of the world's largest suppliers of radioactive sealed sources; they are used in various beneficial applications globally
- High-risk radioactive source licensees are located across Canada



Canadian Nuclear Society Annual Conference
June 5, 2017

Safety and Security: Canadian Practices

- Effective national legislative framework
- Independent national regulatory body
- Regulatory system for authorizations
- Adequately trained and qualified competent staff
- Effective Safety and Control Area framework includes nuclear security
- Integrated processes (technical assessments, license application reviews, annual status report development)



Canadian Nuclear Society Annual Conference
June 5, 2017

Common Approach for Verifying and Enforcing Compliance

- **Compliance activities**
 - technical assessment
 - common inspection processes (Type I and Type II)
 - reactive inspections
- **Regulatory actions**
 - orders
 - administrative monetary penalties
 - directives
 - action notices
 - recommendations
- **Review and approve corrective action plans**





Canadian Nuclear Society Annual Conference
June 5, 2017

Effective Interfacing – Safety and Security

- Common core training for inspectors regardless of their “specialty” (Corporate Inspector Training and Qualification Program)
- Service-line-specific training for all specialty areas
- Basic security inspection training course developed and delivered to field safety inspectors
- Finding balanced solutions using a risk-based approach without compromise to safety and security
- Common tools and processes used by all inspectors



Canadian Nuclear Society Annual Conference
June 5, 2017

What Works at the Operational Level

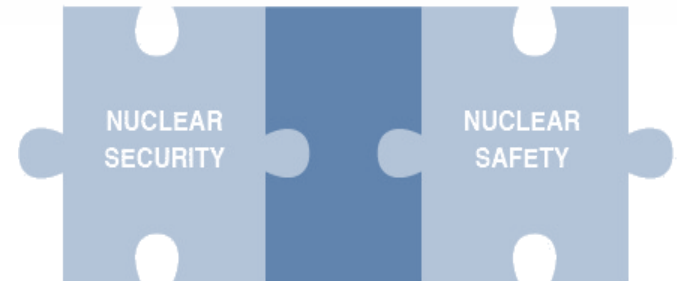
- Enhanced communications between divisions, open discussions on crosscutting areas
- Revision of safety inspection procedures to include security components
- Drafting of new inspection worksheets for security requirements
- Additional security training for inspectors to be provided as part of Inspector Training and Qualification Program



Canadian Nuclear Society Annual Conference
June 5, 2017

Fostering Safety/Security Interfaces

- Inspectors verify both safety and security regulatory requirements while inspecting facilities and activities
 - more frequent basic security verifications
 - more effective use of resources
 - “eyes and ears” in the field
- Effective communication and interfaces to address potential safety/security issues and coordinate inspection activities
- Shared tools to facilitate communication
- Fostering of an inclusive culture of safety and security





Fostering Safety/Security Interfaces (cont'd.)

- Technical support is provided by Nuclear Security Division security specialists, who:
 - continue review of licensee security measures (security plans, transport security plans)
 - perform an initial verification to inspect the implementation of a licensee's security program
 - perform inspections of a licensee on request by licensing divisions
 - serve as a resource for safety inspectors to consult
- Inspection program is commensurate with the risk associated with the licensed activities





Canadian Nuclear Society Annual Conference
June 5, 2017

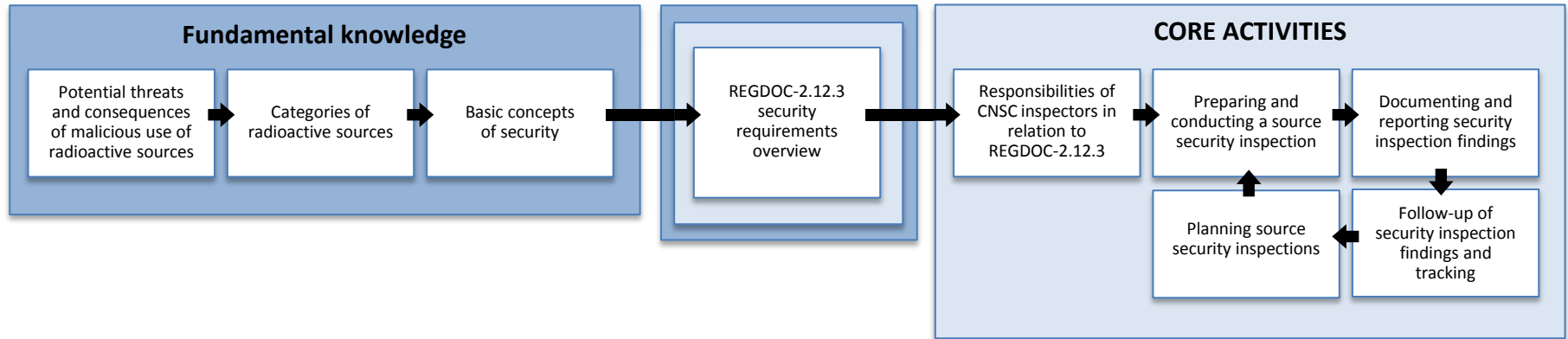
...In the Inspector Training and Qualification Program

- Needs analysis performed with learning specialists
- Systematic approach to training evaluation
- Targeted training
- Incorporated into baseline training requirements for affected work groups / inspectors



Canadian Nuclear Society Annual Conference
June 5, 2017

...In the Inspector Training and Qualification Program

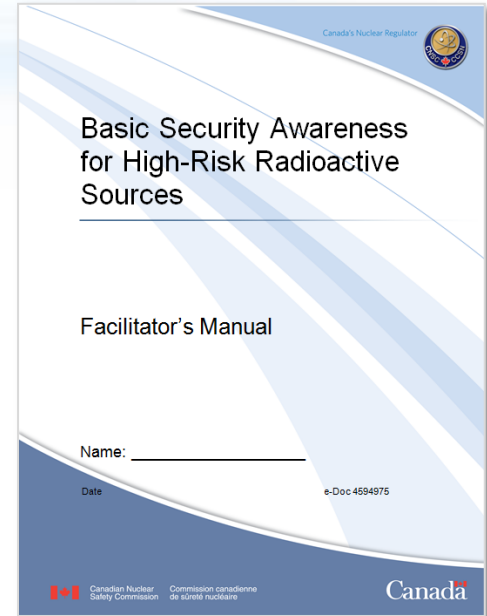




Canadian Nuclear Society Annual Conference
June 5, 2017

Safety Inspector Training

- Well received with positive feedback
- Training provided in a classroom setting with limited fieldwork examples and included test evaluation
- Limited “security exclusive” areas (firearms/tactics and protected arrangements)
- Joint safety/security inspections, which helps increase:
 - safety/security interfaces
 - communications
 - relationships between fellow inspectors





Canadian Nuclear Society Annual Conference
June 5, 2017

“One-Team” Approach Helps Enhance Safety /Security Interfaces

- Increase security awareness for inspectors and provide more visibility on radioactive source security
- Enhanced procedures and processes to assess compliance and protect confidential information in the field
- Better tracking tools for site security plans, transportation security plans, and security inspections and findings
- Internal working group helps to build robust and effective bridges between safety and security experts



Canadian Nuclear Society Annual Conference
June 5, 2017

International Physical Protection Advisory Service (IPPAS) Mission – Canada 2015

- IPPAS unclassified report posted on website
- The IPPAS report states:
 - “The IPPAS team noted substantial integration within CNSC across the safety and security interface.”





Canadian Nuclear Society Annual Conference
June 5, 2017

What Worked Well During the Enhancement of Effective Interfaces

- Defining roles and responsibilities for safety inspectors and security specialists
- Inspection tools and procedures updated to perform combined safety/security inspections
- Development of common expectations for meeting requirements
- Development of security-specific training for inspectors
- Multidisciplinary review teams for development of requirements, guidance and so on



Canadian Nuclear Society Annual Conference
June 5, 2017

Upcoming Changes and Areas for Improvement

- Developing tools and mechanism to better share threat information/intelligence with licensees with high-risk radioactive sources and nuclear facilities
- Ongoing fostering of the “one-team approach”
- Constant recognition that if it is not safe, it is not secure, and if it is not secure, it is not safe.



Canadian Nuclear Society Annual Conference
June 5, 2017

Thank you. Questions?



CANADA 150

Participate and Contribute



Visit us online



View us on YouTube



Like us on Facebook



Subscribe to updates



Follow us on Twitter



Contact us