Ensuring Security of Radioactive Material

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Overview

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- U.S. Regulatory Framework
- Agreement States
- Evolution of Radioactive Material Security
- Source Security Requirements
- IAEA Code of Conduct
- Challenges
- Lessons Learned
- Ongoing Activities

U.S. Regulatory Framework

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- Users of radioactive materials have primary obligation for safety and security
- NRC is the independent regulator of safety and security for the civilian use of radioactive materials
- NRC may delegate some authority to “Agreement States” that have compatible regulatory programs
- Others may play a role in ensuring the security of materials in the United States

Agreement States

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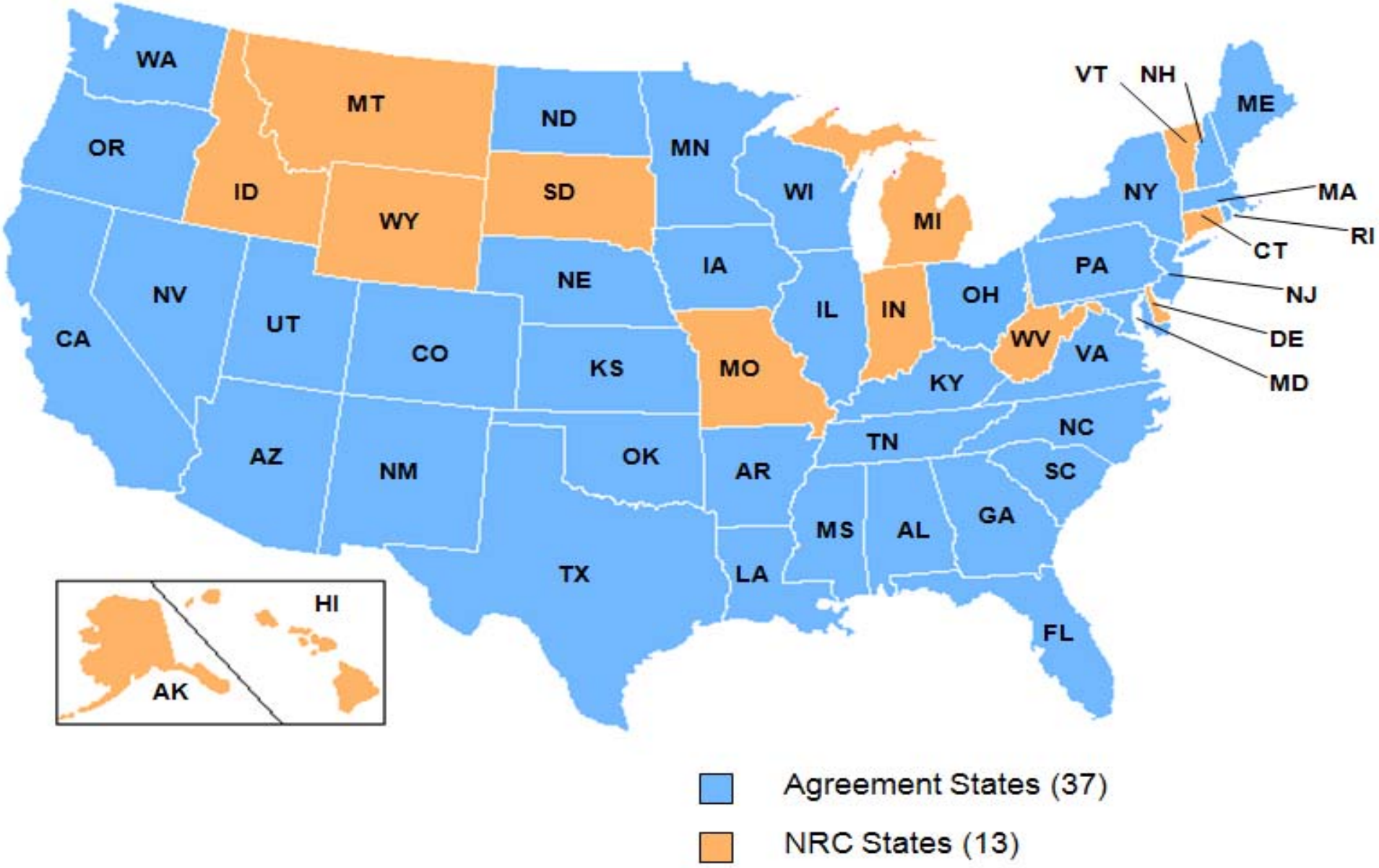

Evolution of Radioactive Material Security

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- After September 11, 2001 terrorist attacks
  - Additional security requirements for risk-significant radioactive material
- Before September 11, 2001 terrorist attacks
  - Security considered in safety programs for all radioactive material regardless of form, activity, and use
- Legislative changes were made to strengthen security

Source Security Requirements

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- Requirements for Category 1 and 2 quantities of radioactive materials include:
  - Security plan
  - Prompt detection, assessment, and reporting; including law enforcement response
  - Confirmation of shipment and receipt
  - Additional security for sources in transit
  - Background investigations for personnel (including fingerprinting)
  - Controlled access to sources and materials
  - Additional barriers for mobile/portable devices
  - Information protection

IAEA Code of Conduct

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- The U.S. made a commitment to the *Code of Conduct on the Safety and Security of Radioactive Sources*
- NRC has worked to ensure compatibility between the Code of Conduct and domestic security requirements
  - Participated in revisions to the Code of Conduct in early 2000s
  - National law in 2005 incorporated definitions from the Code of Conduct
  - NRC maintains a National Source Tracking System
- Regulatory changes (2013) for risk-significant quantities of radioactive materials were informed by the Code of Conduct

Challenges

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- Achieving safety and security without overregulating
- Rapidly enhancing security
  - Orders imposing new requirements
- Integrating safety and security
  - Recognizing complementary and competing objectives
  - Enhancing safety culture

Challenges (Cont.)

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- Improving information technology
  - Enable real-time availability of information about licensed material
  - Balance availability, security, and openness
- Communicating with stakeholders
  - Discussing sensitive information in a public environment
  - Clarifying agency roles and responsibilities

Lessons Learned

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- Regulatory flexibility to address emergent threats
- Communication of threat information to ensure licensees and regulators remain vigilant
- Engage in periodic reviews of regulatory programs to consider future refinements

Ongoing Activities

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- Radiation Source Protection and Security Task Force
- International cooperation and assistance
- IAEA Code of Conduct
- Development of security recommendations and guides
- Retrospective materials security program review
- Working group to evaluate cyber requirements for regulated activities

Summary

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- Significant changes were needed to continue to ensure the security of radioactive materials
- Importance of maintaining coordination and communication with all stakeholders
- Providing adaptable security requirements in response to emergent threats
- Maintaining a strong and effective safety and security program