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Nuclear Security Regime for nuclear and other radioactive material out of regulatory control

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Nuclear Security Regime for Nuclear and Other Radioactive Material out of Regulatory Control



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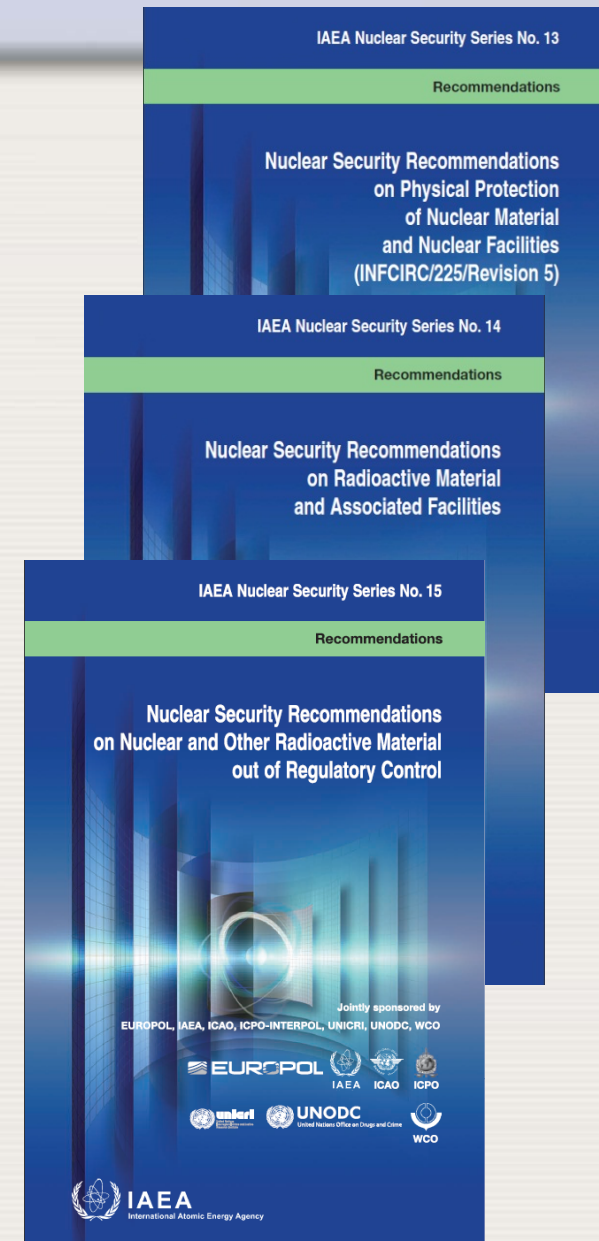


IAEA

International Atomic Energy Agency

Nuclear Security Recommendations

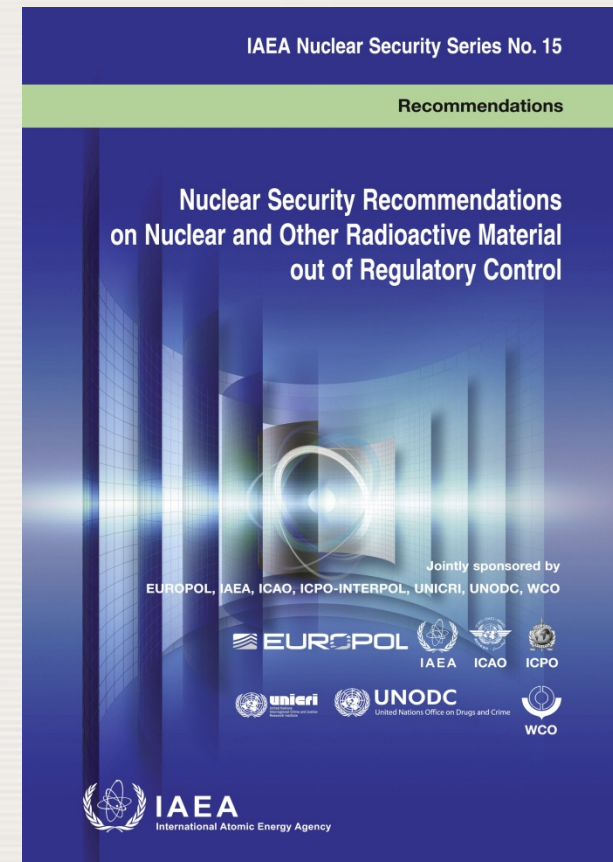
- Physical protection of nuclear material and facilities (INFCIRC/225/Revision5)
- Radioactive material and associated facilities
- **Nuclear and other radioactive material out of regulatory control**



Nuclear Security Recommendations on Nuclear and other Radioactive Material out of Regulatory Control

Purpose:

Provide guidance to States in strengthening their nuclear security regimes and thereby contributing to an effective global nuclear security framework.



http://www-pub.iaea.org/MTCD/publications/PDF/Pub1488_web.pdf

Nuclear Security Regime for Nuclear and other Radioactive Material **out of Regulatory Control**

The objectives of such a regime are achieved by:

- A comprehensive and complete set of legislative provisions;
- Provisions for sufficient and sustained resources to competent authorities to carry out assigned functions, including:
 - **Preventive measures;**
 - ***Detection, through an *instrument alarm* and/or an *information alert*,***
 - ***Response to the nuclear security event***

Recommendations on Preventive Measures

Deterrence of criminal or unauthorized acts:

- Criminalization of acts with appropriate punishment (consistent with international instruments)
- Nuclear forensics to determine origin and history of material and link samples to people, places and events
- Public dissemination of appropriate information
 - Detection capability
 - Threat environment
 - Punishment

Recommendations on Preventive Measures

Information Security

- Define national policy on sensitive information
- Define information that should be protected
- Implemented by all competent authorities
- Establish rules for dissemination of information

Need to ensure that law enforcement, responders and other authorities have access to sufficient information to perform their duties



Recommendations on Preventive Measures

Trustworthiness

- Ensure trustworthiness of personnel through a formal process
- Revalidate regularly
- Implement nuclear security culture

Will assist in reducing the risk of authorized personnel engaging in illegal activities



Recommendations on Detection Measures

- Develop national detection strategy
- Design and implement detection systems and measures
- Minimize impact on legitimate movement of goods and people
- Verify declared content of authorized shipments of radioactive material



Recommendations on Detection Measures

Detection by Instruments

Development of instrument deployment plan, considering:

- National threat assessment
- Transportation routes
- Location of material
- Strategic locations
- Capabilities and constraints of equipment
- Operational requirements
- Need for mobile detection systems



Recommendations on Detection Measures

Detection by Information Alerts

Operational information

- Gather and analyze information to identify any threat or suspicious activity

Medical surveillance

- Health professionals should report any suspicious radiation injury or illness

Reporting regulatory non-compliance

Reporting loss of regulatory control

Recommendations on Detection Measures

Initial Assessment

- Ensure assessment of all alarms/alerts and establish procedures
- Implement procedures to interdict and interrupt potential criminal or unauthorized acts
- Initiate response measures, if initial assessment concludes a nuclear security event has occurred



Recommendations on Response Measures

States should develop a national response system to include:

- Assigning responsibilities
- National response plan
- Graded approach for response
- Development of nuclear security culture

Coordination with safety emergency response activities
is vital for effective response at the scene

Recommendations on Response Measures

Assessment of Instrument Alarms and Information Alerts

- Define roles and responsibilities of experts and support organizations for assessment
- Establish procedures and protocols for final resolution of alarms/alerts
- Activation of national response plan if determined that a nuclear security event has occurred



Recommendations on Response Measures

Notification of a Nuclear Security Event

- Notify the relevant competent authorities as soon as a nuclear security event is determined
- Notify relevant international organizations and other States, in accordance with international agreements and/or national policy

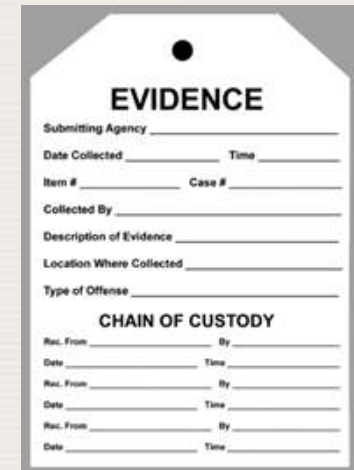
Taking into account the
graded approach



Recommendations on Response Measures

Collection and Handling of Evidence

- Manage the location of a nuclear security event as a potential crime scene
- Ensure coordination of those:
 - recovering control over the material
 - concerned with safety and treating victims
 - gathering evidence
- Persons involved should be suitably qualified and trained
- Ensure plans for proper and timely dissemination of information to the media



A white evidence tag with a hole punch at the top. The word "EVIDENCE" is printed in bold. Below it are fields for "Submitting Agency", "Date Collected", "Time", "Item #", "Case #", "Collected By", "Description of Evidence", "Location Where Collected", and "Type of Offense". At the bottom, there is a "CHAIN OF CUSTODY" section with three rows of "Rec. From", "By", "Date", and "Time" fields.



Recommendations on Response Measures

Nuclear Forensics

- Nuclear forensic techniques should be applied for the purpose of identifying the source, history and the route of transfer
- Categorize seized material on-site
- Characterize material in a designated laboratory
- Traditional forensics on contaminated evidence should also be applied in designated laboratories



Taking into account the preservation of evidence

National Response Plan

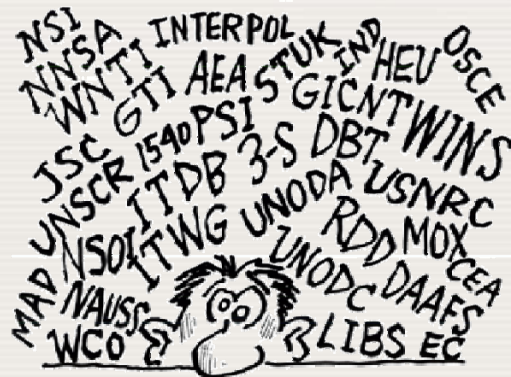
National response plan for nuclear security events should:

- Describe roles and responsibilities
- Contain an appropriate command structure
- Have provisions for coordination among authorities
- Have arrangements for informing the media
- Have provisions for transport of recovered material
- Take into consideration existing radiological emergency plans
- Incorporate the possibility of multiple events
- Incorporate mechanisms for requesting assistance domestically and internationally

Recommendations on International Cooperation

States should exchange information in accordance with international obligations and national legislation

- Identify national points of contact
- Inform the IAEA, UN or other relevant international organizations of cases of nuclear security events
- Provide information on any nuclear security event with potential transboundary effects to potentially affected States
- Participate in and report relevant events to applicable regional and international information databases



Recommendations on International Cooperation

Technical Cooperation

- Promote the cooperation of Customs and other border authorities with those of other States
- Consider conducting or participating in joint exercises and training events internationally or regionally
- Consider providing assistance, including expertise, instrument specifications and equipment, upon request by another State
- Consider requesting assistance from other States and international organizations to improve technical capabilities for detection and response

Recommendations on International Cooperation

Recovery and Return of Seized Material

- State that has located, seized or recovered nuclear or other radioactive material that is out of regulatory control should **securely store** the material and then work with the State in which regulatory control was lost to **arrange the safe and secure return of material**
- **Upon detection** of nuclear or other radioactive material out of regulatory control at a point of exit or entry, the State should work with the State of origin and other relevant States to **return the material to regulatory control**

Consistent with national policies, procedures and applicable bilateral and multilateral arrangements

Recommendations on International Cooperation

Nuclear Forensics

- Assess capabilities to perform nuclear forensics and the potential needs for forensics support
- Should enter into arrangements with other States or relevant regional or international institutions for nuclear forensics analysis and interpretation
- Consider establishing nuclear forensics libraries for inventory of nuclear and other radioactive material



Summary

- Provides recommendations to a State for nuclear security of nuclear and other radioactive material out of regulatory control
- Includes recommendations for detection and assessment of alarms/alerts and for a graded response to criminal and unauthorized acts with nuclear security implications
- The recommendations are not mandatory and do not infringe the sovereign rights of States



Thank you

