



## Nuclear Security: Definition

*The prevention and detection of, and response to, theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving nuclear material, other radioactive substances or their associated facilities.*



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## Nuclear security vulnerabilities remain

**Pretoria News**  
Man shot in nuke plant attack  
Questions over security as armed gang of four storm Haheloiba and shoot officer in chest

**United Nations**  
General Assembly  
Resolution adopted by the General Assembly  
[on the topic of the Peace Convention and the Security Council]

**Army Times**  
B-52 mistakenly flies with nukes aboard  
A B-52 bomber, reportedly loaded with six nuclear warheads, flew from Minot Air Force Base, N.D., to Washington Air Force Base, Va., on Feb. 25, 2013, according to The Seattle Times. According to the article, the bomber was not supposed to fly without its nuclear payload.

**COUPA DE URABANO**

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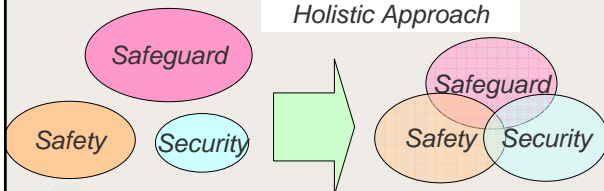
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## Global Nuclear Security Regime

- Nuclear Safeguard – Non-proliferation
- Nuclear Security – Protect Against Terrorism
- Nuclear Safety – Technical Accident Prevention

Holistic Approach



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## Significant strengthening of the international legal instruments for nuclear security

- **Convention on the Physical Protection of Nuclear Materials**
  - 90% IAEA Member States are now party
- **CPPNM Amendment, progress, but slow.**
- **Convention on the Suppression of Acts of Nuclear Terrorism**
- **UN Security Council Resolutions 1540 and 1373**
  - Obligations are binding for **all States**.
- **Code of Conduct on the Safety and Security of Radioactive Sources**
- **Safeguards Agreements, Additional Protocols; the Agency's safeguards system**
- **Nuclear Safety Conventions**




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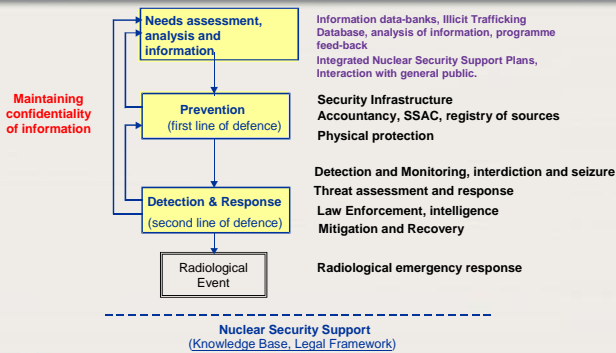
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## Comprehensive Nuclear Security Approach




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## Growing nuclear energy demand – requires solid security arrangements

- ***Vitae nova* of nuclear energy; hope and challenge.**
- **A significant growth in nuclear energy, means:**
  - increased production of source material,
  - more fuel cycle facilities or throughput
  - More transports
  - More nuclear power plants and waste disposal facilities.
- **Nuclear security** must be systematically implemented, part of the commonly accepted norm.
- The IAEA plays a crucial role for that purpose, the only international organization with a mandate in nuclear security.




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## Effective nuclear security in any State includes

- *Effective legal and regulatory structures*
- *Up-to-date physical protection for sites/locations with nuclear and radioactive substances*
- *Accounting, control and registry of all materials*
- *Effective border control systems*
- *Security at major public events*
- *Threat reduction for vulnerable materials or facilities/locations, including repatriation to suppliers*
- *Human resource development*
- *Research and development*
- *Nuclear security culture and sustainability*



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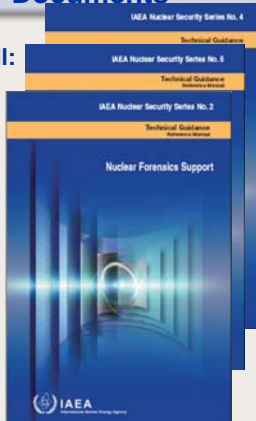
## IAEA Contributions Nuclear Security Series of Documents

**IAEA Nuclear Security Series will:**  
Facilitate international implementation of legal instruments and domestic/national policy

Hierarchical structure:

- **Fundamentals;**  
*essential elements*
- **recommendations**
- **Implementing guides**

Synergies with nuclear safety and safeguards



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## IAEA contributions

### Nuclear Security Information Platform

- Enhanced ITDB & other databases
- Continuous improvement of quality of data in cooperation of MS
- Enhanced analysis to identify nuclear security needs and priorities
- Nuclear Security Information Products that are helpful for States and for the general public.

***N.B. Maintaining confidentiality of sensitive information***



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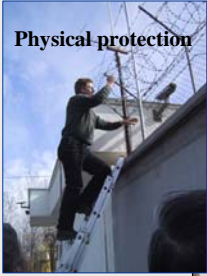
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## IAEA Advisory and Assessment Support Nuclear Security Missions

Physical protection



2층 금강실 한국기술산업(주)  
ISSAS Mission  
to the Republic of Korea  
Place : Konkang Hall 2nd Floor (Korea)  
2층 금강실 크라운제과

Accountancy/registry



Regulatory structure



RADIATION SAFETY AND SECURITY OF  
RADIOACTIVE SOURCES INFRASTRUCTURE  
APPRAISAL (RSASAI) FOR THE REPUBLIC OF  
JEREMBAHAN  
Technical development with  
CONTROL OF PUBLIC EXPOSURE AND WASTE  
SAFETY APPRAISAL (CEPWSAP)  
No. 12 December 2007  
IAEA



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## Threat reduction

Physical protection upgrades, repatriation to supplier

- The Agency supported improvements of physical protection.
- The Agency assisted recovering, conditioning and repatriating spent research reactor fuel or dangerous radioactive sources.
- Activities in a large number of States, all regions



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## Effective Border Control

- Enhanced capabilities to detect, interdict, and respond to illegal acts involving nuclear and other radioactive material and associated facilities, in a large number of States
- Equipment & testing services
- Expert advice
- Research & Development



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## Nuclear Security at Major Public Events

The Agency continued to assist States in developing and implementing measures to prevent incidents of nuclear terrorism at major public events, with support and advice and technical support in the areas of detection, interdiction and response.

- 2004: Summer Olympic Games, Greece
- 2006: Football World Cup, Germany
- 2007: Pan-American Games, Brazil
- 2008 LAC-EU Summit and APEC CEO Summit, Peru
- 2008: Summer Olympic Games, China




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## Human Resource Development



- Coordinating/convening a large number of training and education events; reaching most Member States
- Efforts in support of training programmes in Member States, e.g. National N.S. Support Centres
- Graduate educational programme at universities




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## Integrated Nuclear Security Support Plans

Integrated Nuclear Security Support Plan  
MTRPA Component

COUNTRY



Proposed Actions <sup>1</sup>	Responsible Entity	Proposed Initiation	Main Comments
<b>Legal and Regulatory Framework</b>			
1. Review the relevant Country laws and regulations to determine where provisions specifically related to nuclear security (such as physical protection, controls, strict licensing, export control, prohibited materials) for which existing laws cannot adequately legal instruments and IAEA assistance are required.	Country/IAEA	Month/Year	Start with by ICI from Action, Project ...
2. Expedite drafting and promulgation of advanced regulatory texts, based on gap analysis, and bring into force the necessary legal provisions.	Country/IAEA	Month/Year	IAEA mission conducted ...
3. Expedite drafting and promulgation of advanced regulatory texts, based on gap analysis, and bring into force the necessary legal provisions.	Country/IAEA	Month/Year	Start with ...
4. Expedite the ratification of the Additional Protocol to the IAEA Safeguards Agreement.	Country	Month/Year	ITE mission conducted in ...
5. Initiate process of adhering to and implementing the Convention on Physical Protection of Nuclear Material (CPPNM).	Country	Month/Year	
6. Initiate process of adhering to and implementing the Amendment to Convention on Physical Protection of Nuclear Material (CPPNM).	Country	Month/Year	
7. Initiate process of adhering to and implementing the Nuclear Terrorism Convention.	Country	Month/Year	
8. Consider ratifying the Code of Conduct on the Safety and Security of Radioactive Sources including the supplementary Guidelines on the Import and Export of Radioactive Sources.	Country	Month/Year	
<b>Prevention</b>			
9. Establish State's own assessment.	Country/IAEA	Month/Year	
10. Carry out review of the level of security arrangements of the nuclear facilities taking into account the State assessment, regulatory requirements and IAEA recommendations. Implement for necessary upgrades.	Country/IAEA/Donors	Month/Year	Priority task with by ICI from Action, Project ... OOO will provide support for upgrading ...

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## International Cooperation and Coordination

- **Member States and not yet Member States**
- **Interpol, Europol, WCO, OSCE, UNICRI, ITU/JRC, UNODC, etc.**
- Conferences, meetings and workshops
- Expert support: development of Nuclear Series documents, peer reviews and missions
- Outreach and information exchange; e.g. information clearing house and international coordination



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## Q&A



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