IAEA
International Atomic Energy Agency
Atoms for Peace and Development

Evaluation of the Effectiveness of the Nuclear Security Regime

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Third International Regulator's Conference on Nuclear Security
Marrakech, Morocco
Oct 1-4 2019

Nuclear Security Regime

- The **legislative and regulatory framework** governing the nuclear security of nuclear material, other radioactive material, associated facilities and associated activities;
- The **institutions and organizations** within the State responsible for ensuring the implementation of the legislative and regulatory framework;
- **Facility and transport nuclear security systems** (integrated set of nuclear security measures to prevent the completion of a malicious act)

Sustaining the Nuclear Security Regime' Effectiveness

- Developing, implementing and maintaining
  - Effective integrated management system
  - Robust nuclear security culture
  - Robust nuclear security framework
  - Robust nuclear security systems
- Allocating
  - Sufficient human, financial and technical resources
- Routinely conducting
  - Maintenance, training and evaluation
- Using
  - Best practices and lessons learned

The Role of the IAEA

Supports States, upon request, in their efforts to establish and maintain effective nuclear security through:

- guidance development (Nuclear Security Series),
- assistance in capacity building, including human resource development,
- peer reviews and advisory services,
- R&D,
- information exchange, and
- risk reduction (as evaluation justifies).

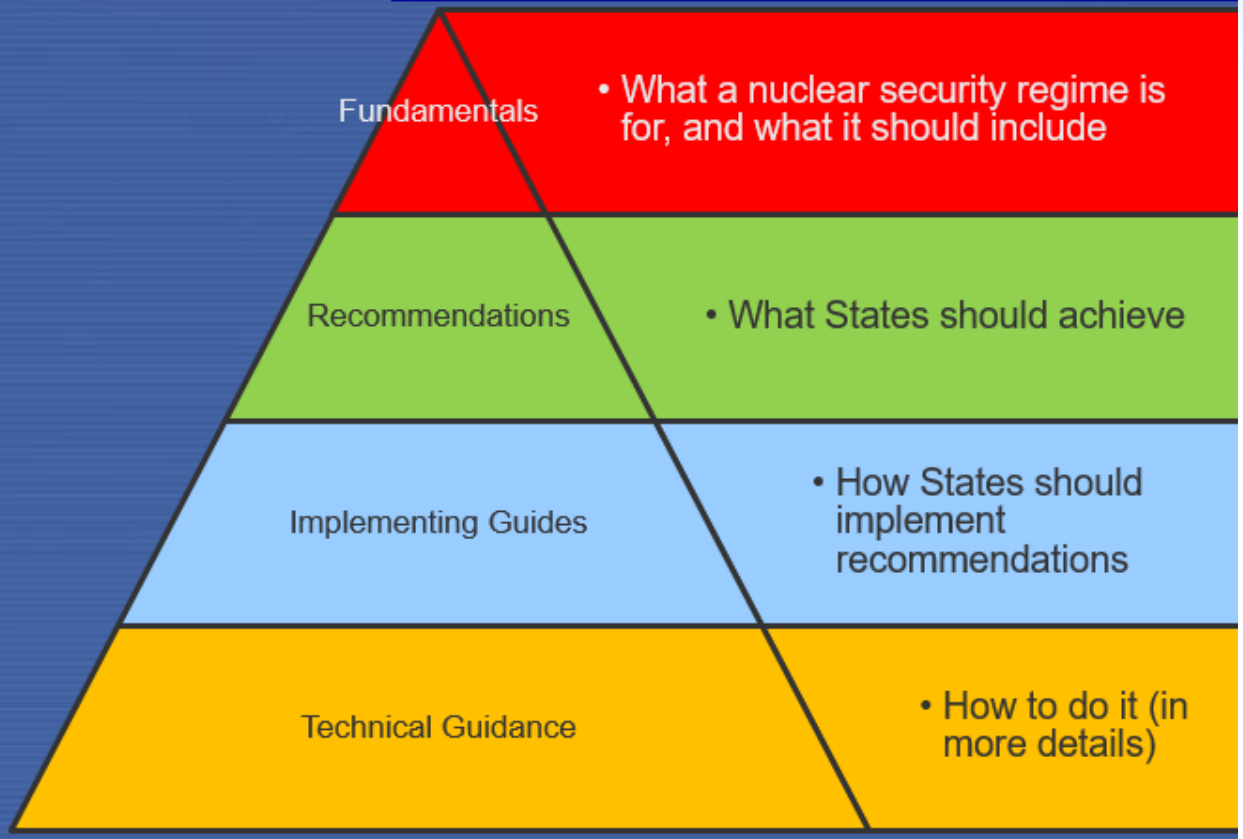
Facilitates adherence to and implementation of international legal instruments related to nuclear security.

Nuclear security is a national responsibility!

Guidance Documents

36 Documents published.

Based on the International legal framework for nuclear security



http://www-pub.iaea.org/books/IAEABooks/Series/127/Nuclear-Security-Series

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Capacity Building

Human resource development is the key to sustainability

Education:

- Master of Science program in nuclear security (IAEA NSS.12)
- Master program rolled-out in six Universities in 2013
- International Nuclear Security Education Network, 2010, providing a forum for collaboration in activities for nuclear security education

Training:

- Over 30 different nuclear security training courses designed
- More than 100 training events run per year
- Over 19,000 participants from 120 States trained since 2002
- Nuclear Security Support Centers

Nuclear Security e-Learning

The IAEA Division of Nuclear Security offers a set of 6 online courses on the IAEA Open Learning Management System:

RADIATION DETECTION INSTRUMENTS for FRONT LINE OFFICERS

TRANSPORT SECURITY

COMPUTER SECURITY

NUCLEAR MATERIAL ACCOUNTING AND CONTROL for SECURITY PURPOSES

RADIOLOGICAL CRIME SCENE MANAGEMENT

PHYSICAL PROTECTION

The courses are based on IAEA guidance documents and provide an introduction to the nuclear security to the interested nuclear facility personnel and the public. They will also provide preparatory learning for face-to-face training and other human resource development activities implemented by the IAEA and its Member-States. The Nuclear Security Disciplines are now available to the public at:

http://olms-nkm.iaea.org/nsns/training

Evaluation of effectiveness

- Self-assessment
  - Self-assessment of nuclear security culture (IAEA NSS No. 28)
  - SS-29 International Physical Protection Advisory Service (IPPAS)
  - Nuclear Security Assessment Methodologies for Regulated Facilities (TECDOC-1868)
  - Self-Assessment of Nuclear Security of Materials and Facilities under Regulatory Control (under development)
  - Evaluation of Physical Protection Systems (under development)

- Peer reviews
  - INSSP (overall need assessment)
  - Expert missions (targeted for regulation development and security upgrades)
  - IPPAS (for comprehensive review of the entire regime)

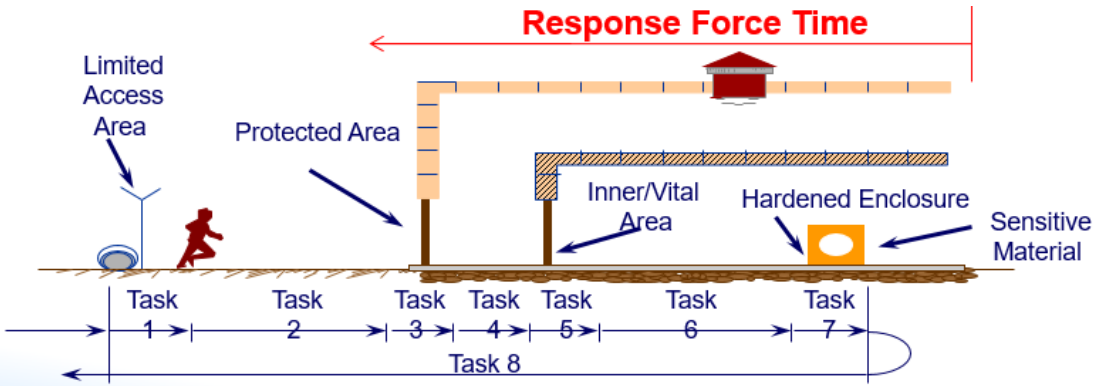
International Physical Protection Advisory Service (IPPAS)

- Modular approach
  - Module 1: National review of nuclear security regime for nuclear material and nuclear facilities
  - Module 2: Nuclear facility review
  - Module 3: Transport review for nuclear material
  - Module 4: Security of radioactive material and associated facilities and activities
  - Module 5: Information and computer security review
  - Module 6 (draft): Nuclear Material Accountancy and Control Review

Science and Technology in Nuclear Security

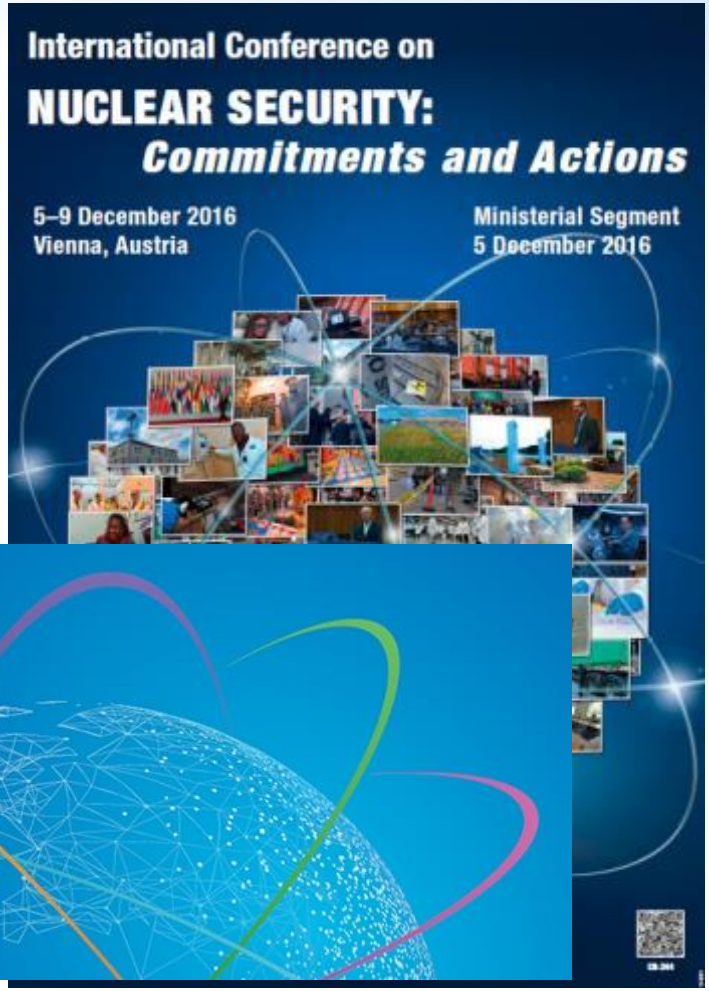
- More than just guards, guns and gates

- Detection – Delay - Response
  - Intruder detection sensors
  - Behavior observation (insider)
  - Radiation detectors
  - Data transmission and communication systems
  - Activated delay equipment
  - Tracking devices
  - Cyber security



International Nuclear Security Conference in 2016 and 2020

- Attracted some 2100 registered participants from 139 Member States
- 47 Member States were represented at ministerial level



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Thank you!