

Nuclear Security @ civil nuclear facilities

International Forum on the Peaceful Use of Nuclear Energy
and
Nuclear Security

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IAEA

International Atomic Energy Agency

Background

- In the report of May 2001 “informal Open-Ended Expert Meeting to discuss whether there is a Need to Revise the CPPNM”, it was concluded that there is a clear need to strengthen the physical protection regime by employing a spectrum of measures like:
 - *1. Drafting a well defined amendment to strengthen the CPPNM*
 - *2. Compiling a set of physical protection objectives and fundamental principles*
 - *3. Review, in consultation with Member States, the Agency plan of activities, in the subject area*
 - *Establish Advisory Group on Nuclear Security*

Background Cont...

- In response, a plan describing the future activities to be undertaken in these areas and a time schedule for their implementation, a Plan of Activities for the Agency's Security of Material programme was prepared.
- As a result of Sept. 11 attack, General Conference requested DG to thoroughly review the Agency Programs and activities with the view to strengthening its ability to prevent acts of nuclear terrorism.

Background Cont...

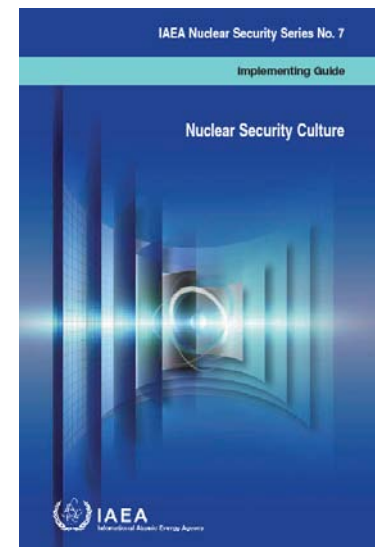
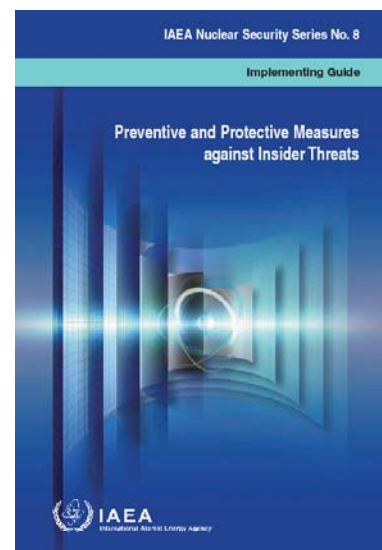
- DG, IAEA Convened first meeting of Legal and Technical Experts to draft a well –defined amendment to strengthen the Convention in Dec. 2001.
- Board endorsed the “physical Protection Objectives and Fundamental Principles” in Sept. 2001
- Agency submitted to Board its plan of activities in 2001
- Advisory Committee on Nuclear Security (AdSec) was established and its first meeting was convened in Feb. 2002.

IAEA NUCLEAR SECURITY DOCUMENTS

Development

Nuclear Security Documents

- Nuclear Security Fundamentals (GC(45)/INF/14)
- Recommendations
- Implementing Guidelines and Technical Guidance



Nuclear Security Fundamentals

Fundamentals of a State's Nuclear Security Regime

- Objective and Essential Elements
- Basis for *Nuclear Security Recommendations*
- Essentials from international instruments **and**
best practices

Recommendations

- Recommendations (WHAT)
 - General approaches, actions, concepts and strategies
 - Applications of *Fundamentals*

There are three different Recommendations document:

- Physical protection of Nuclear Material and Nuclear Facilities (also INFCIRC/225. Rev. 5) (IAEA Nuclear Security Series 13)
- Recommendations on Security of Radioactive Material and Associated facilities (IAEA Nuclear Security Series 14)
- Recommendations on Security of Radioactive Material outside of Regulatory Control (IAEA Nuclear Security Series 15)

IAEA Nuclear Security Series No. 13

Recommendations

**Nuclear Security Recommendations on
Physical Protection
of Nuclear Material
and Nuclear Facilities
(INFCIRC/225/Revision 5)**



IAEA Nuclear Security Series No. 14

Recommendations

**Nuclear Security Recommendations
on Radioactive Material
and Associated Facilities**



IAEA Nuclear Security Series No. 15

Recommendations

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

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INFCIRC/225/Rev5

- It provides guidance to States and their competent authority on how to **develop** or **enhance**, **implement**, and **maintain** a physical protection regime for nuclear material and nuclear facilities, through the establishment or improvement of their capabilities to implement legislative and regulatory programmes.
- The goal is to address the protection of nuclear material and nuclear facilities in order to reduce the risk of malicious acts involving such material or facilities.

INFCIRC/225/Rev5

Objectives

- Protect against unauthorized removal
- Locate and recover missing nuclear material
- Protect against sabotage
- Mitigate or minimize effects of sabotage

Security of Radioactive Sources

- It provides guidance and recommended measures for implementing security measures on radioactive sources, including for the prevention of, detection of, and response to malicious acts involving radioactive sources.
- It recommends that security measures be applied to radioactive sources in manufacture, use and short term or long term storage.

Implementing Guides

- Implementing Guides (HOW)
 - Broad guides on applying *Recommendations*
 - Ways & means of implementing *Recommendations* at systems level

Nuclear Security Series – Published as Technical Guidance

- [Technical Guidance](#)
 - Reference Manuals, Training Guides, Service Guide
- Technical and Functional Specifications for Border Monitoring Equipment. NSS-1
- Nuclear Forensic Support, NSS-2
- Monitoring for Radioactive Material in International Mail Transported by Public Postal Operators, NSS-3
- Engineering Safety Aspects of the Protection of Nuclear Power Plants against Sabotage, NSS-4
- Identification of Radioactive Sources and Devices, NSS-5



Nuclear Security Series – Published as Technical Guidance

- Combating Illicit Trafficking of Nuclear and Other Radioactive Material, NSS-6
- Nuclear Security Culture, NSS-7
- Preventive and Protective Measures against Insider Threats, NSS-8
- Security in the Transport of Radioactive Material, NSS-9
- Development, Use and Maintenance of the Design Basis Threat, NSS-10
- Security of Radioactive Sources, NSS-11
- Educational Programme in Nuclear Security, NS-12

Nuclear Safety and Security

the way forward

- A Joint AdSec-CSS Task Force agreed on the following four principles on 03/11/2011:
 - 1. Nuclear security and safety are equally important;
 - 2. Nuclear Safety and Security document preparation profiles should be reviewed to identify/define interfaces;
 - 3. Draft safety publications and draft nuclear security publications that have an identified interface should be developed in consultation;
 - 4. Draft safety and draft security publications should be reviewed and approved to ensure that they are in accordance with the Safety Fundamentals and the Nuclear Security Fundamentals.
- The task force proposed that the Director General should establish a Nuclear Security Guidance Committee, with terms of reference consistent with the four principles above.

Thank you

