

NUCLEAR SECURITY ACTIVITIES OF THE IAEA
*regarding nuclear and other radioactive material,
associated facilities and associated activities under
regulatory control*

Dr. Kristof Horvath
Section of Nuclear Materials and Facilities
Division of Nuclear Security
Department of Nuclear Safety and Security

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IAEA

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Content of this presentation

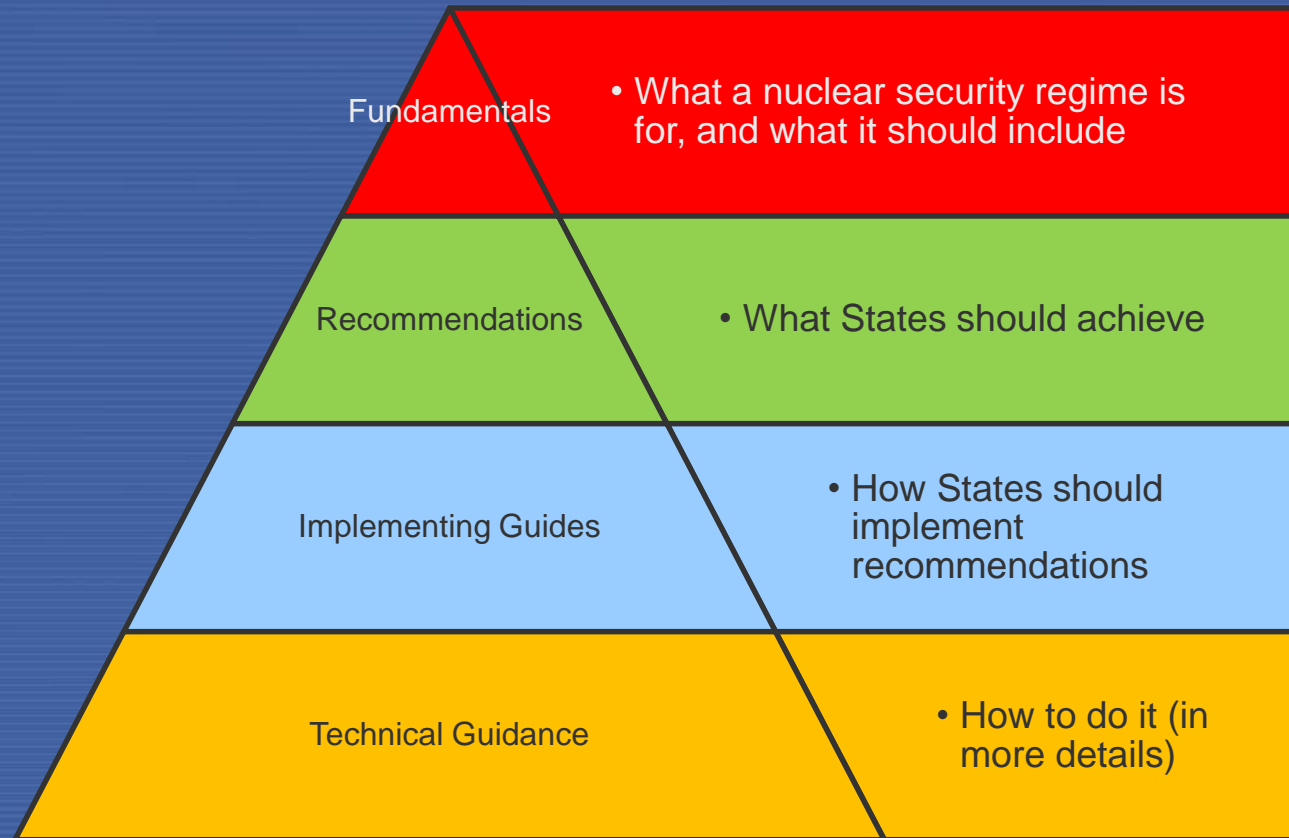
- Development of Nuclear Security Series publications
- Integrated Nuclear Security Plans
- Human resource development
- Research and Development
- External coordination
- Risk reduction
- Peer Reviews and Advisory Services



IAEA Nuclear Security Series

26 Documents published.

Based on the International legal framework for nuclear security



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

Integrated Nuclear Security Support Plans (INSSPs)

- IAEA works with states upon request to establish Integrated Nuclear Security Support Plans as a key modality to:
 - provide a comprehensive assessment of a State's nuclear security needs,
 - plan for the necessary nuclear security improvements to meet such needs
- Five Functional Areas:
 - Legislative and Regulatory Framework
 - Prevention
 - Detection
 - Response
 - Sustainability

Human Resource Development

- ➔ **Comprehensive Training Programme**
Objective: To raise awareness, to fill gaps between the actual performance of personnel and the required competencies and skills and, to build-up qualified instructors/trainers
- ➔ **Nuclear Security Education**
Objective: To support the development of teaching material, faculty expertise and preparedness, and the promotion of nuclear security education in collaboration with the academic and scientific community
- ➔ **Nuclear Security Support Centres**
Objective: To support member state capacity in nuclear security through human resource development, technical and scientific support

Ultimate Goal: To develop capabilities for supporting sustainable implementation of the international legal instruments and IAEA guidelines for nuclear security worldwide, and to foster nuclear security culture

International Network for Nuclear Security Training and Support Centres (NSSC Network)



International Network for
Nuclear Security Training
and Support Centres
NSSC Network

Established in 2012

Mission

- To contribute to the global efforts to enhance nuclear security capacity building through an effective and collaborative network of nuclear security training and support centres

Priorities

- Coordination among NSSCs
- Identification of needs and capabilities
- Sharing best practices, lessons learned, and resources
- NSSC exchange visits
- Facilitating regional collaboration
- Encouraging link with higher education

Membership

- Currently 57 member-states
- Membership open to all IAEA Member States through official channels

Vision for Future Activities

- Network as a stronger tool for States
- Expanded NSSC involvement in nuclear security training, equipment maintenance and repair activities currently performed by IAEA
- Strengthened regional NSSC collaboration



**Photos: 2016 NSSC Network Annual Meeting, held in Islamabad Pakistan*



International Nuclear Security Education Network (INSEN)



Mission: to enhance global nuclear security by developing, sharing and promoting excellence in nuclear security education

- Established in 2010
- Membership is informal and open to any educational and research institution already involved or planning to be involved in nuclear security education in the future, or any competent authority that is interested or involved in nuclear security education
- 155 registered institutions from 54 Member States
- Professional Development Courses (PDCs) for faculty members in the different areas of nuclear security
- Degree programmes, courses, and modules
- Teaching materials, textbooks and methodological tools

Training Courses and Workshops

- International / Regional / National

- Training Course
 - Workshops
- More than 100 events per year
More than 2,000 attendees per year
- More than 25 approved training material set e.g.:

- Nuclear security culture
- Transport security
- Security of radioactive sources
- Prevention against insiders
- Vital area identification
- Cyber security
- Nuclear material accountancy and control

■	Development of a Nuc Security Regime for NP -Feb 2017 -Sato
■	Drafting Nuc Sec Plan for RRAFs - May2015 Brooks
■	Evaluation of PP System Effectiveness-Dec2015 -Sato
■	Implement of NSS13-225rev5 -June2016 -Brooks
■	IPPAS ITC- Dec 2015 - Stadalnikas
■	IPPAS workshop -Nov2015 -Delauney
■	ITC-26 PP of NM and NFs Albuquerque Oct-Nov 2016 Stadalnikas
■	Material Control Use Move Store -Feb2017-Larsen
■	NMAC for Nuc Sec at Facilities -Mar2015 -Larsen
■	Nuc Sec Inspections at RRAFs - Apr2015 Brooks
■	Nuc Sec Mgmt for RRAFs -May2015 Brooks
■	Nuclear Security Culture in Practice- Aug2015 -Hamada
■	Nuclear Security Culture Self Assessment-Aug 2015- Hamada
■	Old training and workshops
■	PP of Nuclear Material and Nuclear Facilities- May2016- Garrett
■	Prev and Prot Measres for Insider- June 2015- Larsen
■	Protection Measures against Sabotage - May2015- Garrett
■	Reg Authorization at Nuclear Reactors July2016-Sato
■	Sec Mgmt n Sec Plan for Rad Mat-Aug2014 -Schlee
■	Security of Nuc Mat in Transport- Dec2015- Ladsous
■	Security of Rad Mat in Transport- Dec2015 - Ladsous
■	Security of Radioactive Sources -July2015 -Schlee
■	Train the Trainer on PP of NM and NFs-May2016 -Garrett
■	Uranium Ore Concentrate + Transport-Feb2017
■	Vital Area Identification - May2010 - Stadalnikas
■	Workshop on Design Basis Threat (DBT) -Feb2017 -Seo

Other events

- Consultancy Meetings
 - Task specific (e.g. Development of NSS guidance)
 - Participation of recognized experts of MSs
- Technical Meetings
 - Information exchange on specific topics
 - Wider participation of MSs
- International conferences
 - IC on nuclear security (2013, 2016)
 - IC on computer security (2015)

Research and Development

- R&D done through coordinated research projects
 - Computer security at nuclear facilities
 - Security of radioactive material
 - Insider threat
 - Development of nuclear security culture
 - Nuclear forensics

Information Exchange, Risk Reduction and Security Improvements

- Information exchange
 - with Member States and other International Organizations (e.g. ITDB)



- Risk reduction

- physical protection upgrades, detection and response equipment at border crossings, etc



Peer Reviews and Advisory Services

- International Physical Protection Advisory Service (IPPAS) missions
 - detailed reviews of the legal and regulatory basis for the physical protection of nuclear activities
- International Nuclear Security Advisory Service (INSserv) missions
 - broader nuclear security requirements and legal regulations

IPPAS Mission Objectives

- Review **State Physical Protection Regime** and **Security Systems** for Nuclear and other radioactive material & associated facilities and activities against **international legal instruments** and **IAEA Nuclear Security Series (NSS)**
- Assist **Member States and operators** to implement requirements and recommendations from **international instruments** and **IAEA NSS publications**
- **Identify good practices** that could be (anonymously) communicated to other Member States for long-term improvement



IPPAS Process

AWARENESS
and Informal
Consultations

Formal
Request

3-6 months

Preparatory
Meeting

4-8 months

IPPAS
Mission

1-2 months

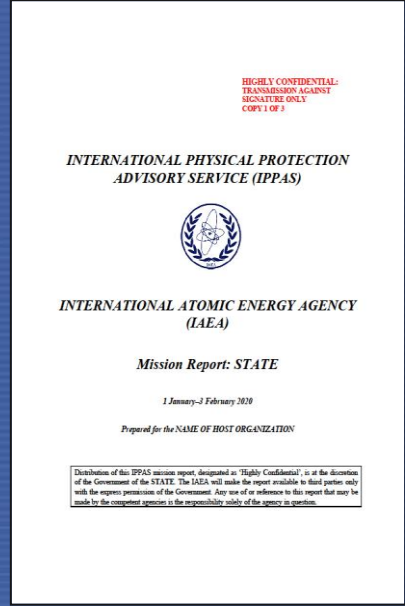
Final Mission
Report

6-12 months

Follow-up
Activities

3-4 years

IPPAS Follow-up
Mission



IPPAS mission report is highly confidential



Successes in IAEA Capacity Building Activities for Nuclear Security

- What have we done well?
 - Developed guidance documents with consensus of Member States
 - Produced training courses based on the guidance documents
 - Helped States identify needs through INSSP, INSServ, IPPAS, etc.
 - Delivered training courses to States based on needs identified and on requests for assistance
- How have we done it?
 - Good cooperation with and a strong mandate from Member States
 - Technical capacities within the Secretariat
 - Availability of extra-budgetary resources, from donor states in particular
 - Enhanced cooperation and sharing of good practices through HRD networks (e.g. NSSC Network, INSEN)

Future challenges

- Increasing requests for support from States
- Need for comprehensive guidance, and need for maintaining currency of existing guidance
- Predictable and assured human and financial resources to improve planning
- Aging of experts / knowledge management

SUMMARY

- Development of Nuclear Security Series
- Human resource development activities, including international networks
- IPPAS mission to assess security arrangements both at State and facility levels
- Successes in capacity building activities
- Future challenges

...Thank you for your attention

