International Atomic Energy Agency

Official Inauguration of the Indonesia Centre of Excellence on Nuclear Security and Emergency Preparedness (I-CoNSEP)

19 August 2014, Yogyakarta, Indonesia

IAEA Nuclear Security Activities

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Outline

- Background
- Achievements
- Current Nuclear Security Plan 2014-2017
- Conclusions

Background

IAEA Secretariat

- Carries out programmes and activities approved by Agency's policy making organs
- 2500 staff members from more than 125 countries
- Engineers, physicists, analysts, accountants, translators, managers …

IAEA's Policy Making Organs

Board of Governors

- 35 Member States
- Rotation every 2 years

General Conference

- All Member States
- 162

IAEA Mission

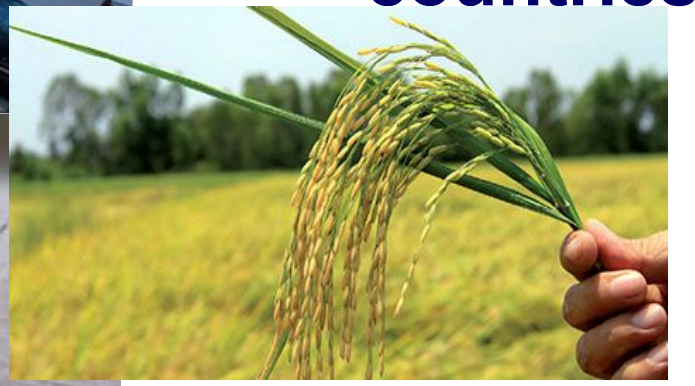
Maximizing the contribution of safe & secure nuclear technology to society, while verifying its peaceful use

1. Science and Technology

2. Safety and Security

3.Safeguards and Verification

1. Science & Technology



Mobilize peaceful applications of nuclear science and technology for critical needs in developing countries

Contributing to the *protection of people, society and the environment* against harmful radiation effects

3. Safeguards and Verification

A system designed to provide *assurance* about the exclusively *peaceful use* of *nuclear material* and *facilities*

Nuclear Security

Prevention **Detection** **Response**

… criminal or intentional unauthorized acts involving or directed at nuclear material, other radioactive material, associated facilities, or associated activities.

Measures taken to control and protect nuclear and other radioactive material from falling into the wrong hands

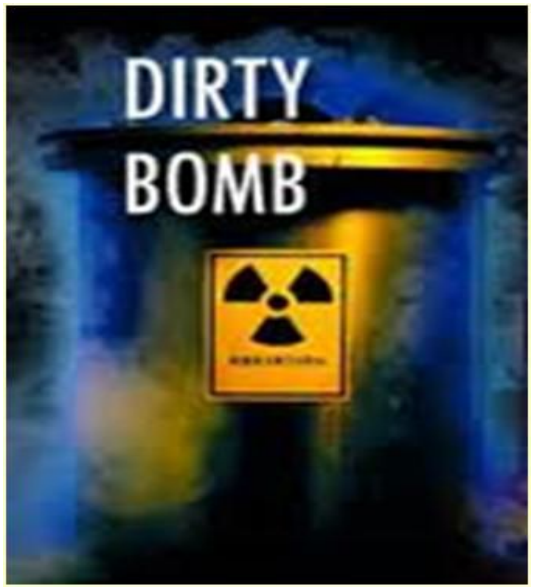
Scope of applications

- Over 430 operating nuclear power plants, providing ~ 11% total electricity worldwide
- Over 250 research reactors
- Over 240 commercial fuel cycle facilities
- More than 70 new nuclear power plants are being built in 15 countries
- 30 +/- new countries embarking on nuclear power programmes
- Millions of radioactive sources used in medicine, agriculture, industry, research…etc.
- Establishing an effective and sustainable nuclear security infrastructure is crucial for the protection of people, society and the environment

Nuclear Security Concerns

· Nuclear and other radioactive material that is not properly secured

· Possible malicious acts involving such material



What is the Risk?

· Theft of NM to make IND

· Theft of RM to make RDD or RED

· Sabotage of facility or transport

Incident and Trafficking Database

From January 1993 to May, 2014, more than 2500 incidents were reported to the ITDB by participating States and some non-participating States

IAEA's Vision for Nuclear Security

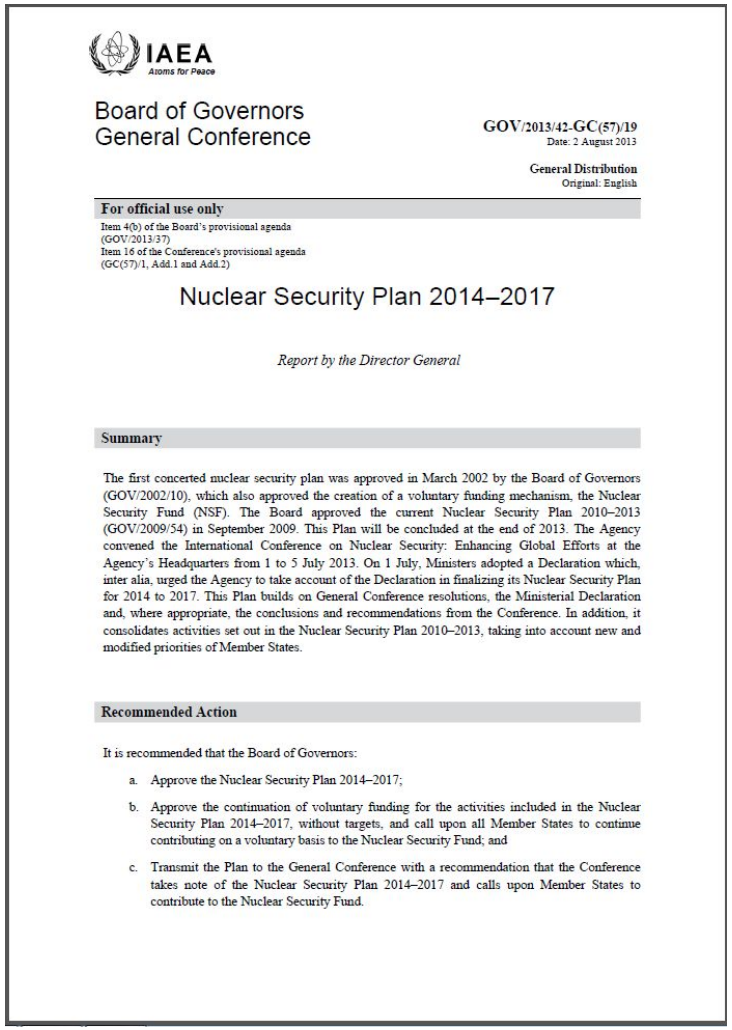
Achieving worldwide, effective security wherever nuclear or other radioactive material is in use, storage and/or transport, and of associated facilities and activities



A global threat demands a global response.

Nuclear Security Plans

- Three Nuclear Security Plans (NSPs) completed, 2002-2005, 2006-2009, 2010-2013
- Current NSP 2014-2017 underway



IAEA
Atoms for Peace

Board of Governors
General Conference

GOV/2013/42-GC(57)/19
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Item 4(b) of the Board's provisional agenda
(GOV/2013/37)
Item 16 of the Conference's provisional agenda
(GC(57)/1, Add.1 and Add.2)

Nuclear Security Plan 2014–2017

Report by the Director General

Summary

The first concerted nuclear security plan was approved in March 2002 by the Board of Governors (GOV/2002/10), which also approved the creation of a voluntary funding mechanism, the Nuclear Security Fund (NSF). The Board approved the current Nuclear Security Plan 2010–2013 (GOV/2009/54) in September 2009. This Plan will be concluded at the end of 2013. The Agency convened the International Conference on Nuclear Security: Enhancing Global Efforts at the Agency's Headquarters from 1 to 5 July 2013. On 1 July, Ministers adopted a Declaration which, inter alia, urged the Agency to take account of the Declaration in finalizing its Nuclear Security Plan for 2014 to 2017. This Plan builds on General Conference resolutions, the Ministerial Declaration and, where appropriate, the conclusions and recommendations from the Conference. In addition, it consolidates activities set out in the Nuclear Security Plan 2010–2013, taking into account new and modified priorities of Member States.

Recommended Action

It is recommended that the Board of Governors:

a. Approve the Nuclear Security Plan 2014–2017;

b. Approve the continuation of voluntary funding for the activities included in the Nuclear Security Plan 2014–2017, without targets, and call upon all Member States to continue contributing on a voluntary basis to the Nuclear Security Fund; and

c. Transmit the Plan to the General Conference with a recommendation that the Conference takes note of the Nuclear Security Plan 2014–2017 and calls upon Member States to contribute to the Nuclear Security Fund.

Objectives of Nuclear Security Plans

Nuclear security is a national responsibility.

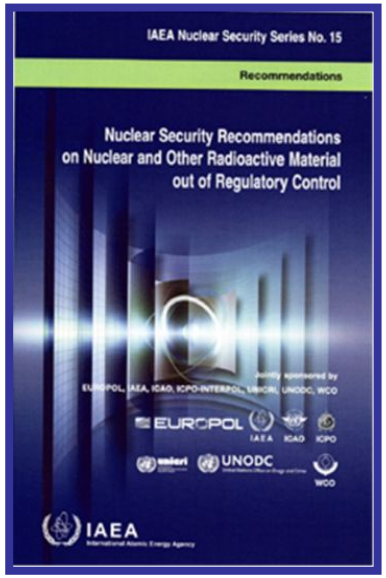
- Supports States, upon request, in their efforts to establish and maintain effective nuclear security through, guidance (standards), assistance in capacity building , human resource development, peer reviews and advisory services, R&D, information exchange, and risk reduction.

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

Achievements

IAEA Assistance & Cooperation

1. Encouraging and facilitating adherence to international legal instruments
2. Developing Nuclear Security guidance
3. Peer Reviews / Advisory Services, Integrated Nuclear Security Support Plans (INSSPs)
4. Education & Training
5. Major public events
6. Risk Reduction



1. Legal Instruments

Platform of international legal instruments, binding and non-binding

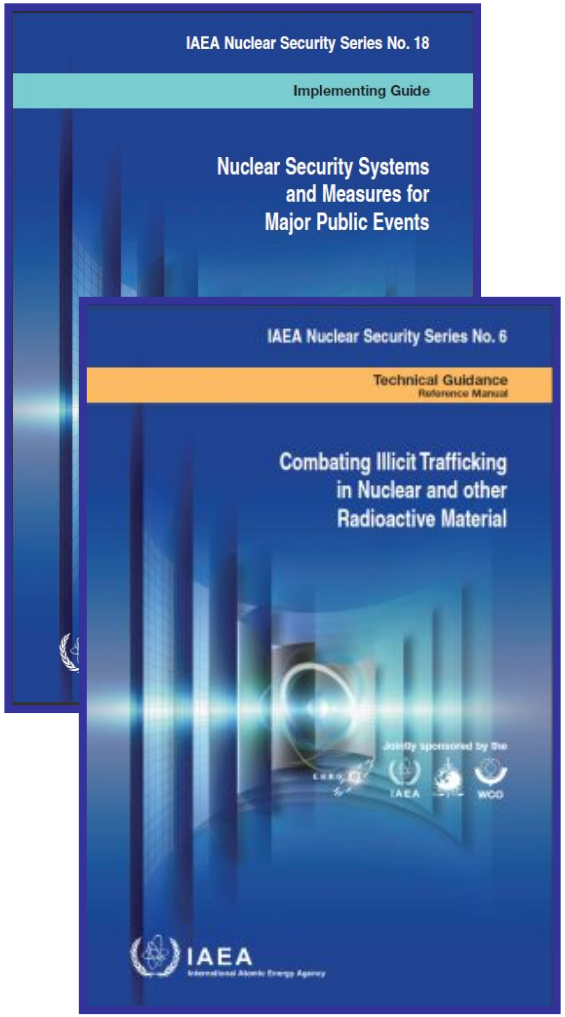
- Convention on the Physical Protection of Nuclear Material (149 State Parties), and 2005 Amendment (78 Contracting Parties) – Not yet entered into force (22 CP needed)
- Nuclear Terrorism Convention and other counter terrorism conventions
- UNSC Resolutions 1373, 1540, 1977

- INFCIRC/225/Rev 5 published as IAEA Nuclear Security Series No. 13
- Code of Conduct for the Safety & Security of Radioactive Sources

All instruments support IAEA taking important role for implementation through its programmes:

- **Development of internationally accepted guidance and standards**
- **Provision of assistance (e.g. peer review & advisory services, E&T, equipment…)**

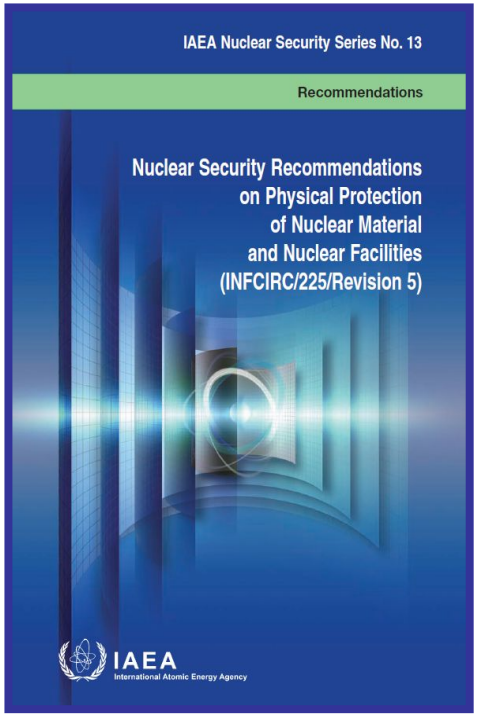
2. IAEA Nuclear Security Series



The **Nuclear Security Series (NSS)**, developed in close consultation with Member States' experts, bring together best practices acceptable to the international community for broad implementation.

The **Nuclear Security Guidance Committee (NSGC)**, open to all Member States, makes recommendations on the development and review of the Nuclear Security Series.

21 NSS Publications include:
1 Fundamentals
3 Recommendations
8 Implementing Guides
9 Technical Guidance



3. Peer Reviews / Advisory Services

Provided upon request from States

International Nuclear Security Advisory Service (INSServ)

Focuses on:

- nuclear and other radioactive material **out of** regulatory control
- general overview of key elements of national nuclear security regime
- Identification of needs for improvement of legal and institutional framework and technical means
- 71 INSServ to date

International Physical Protection Advisory Service (IPPAS)

Focuses on:

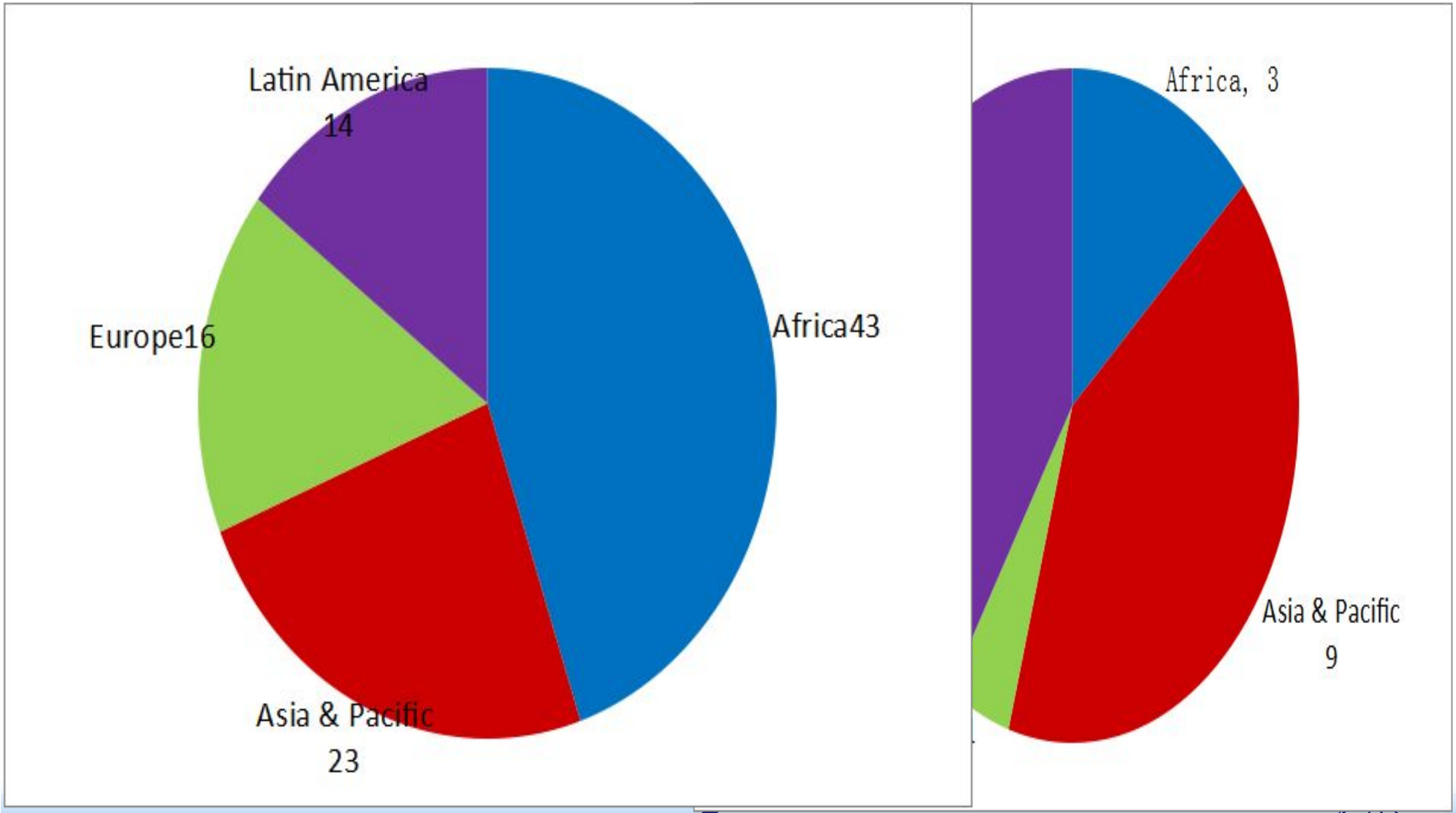
- nuclear and other radioactive material **under** regulatory control
- in depth review of physical protection regime
- Identification of needs for enhancement at state and facility (activity) level, including transport
- 62 IPPAS to 40 States

3. Integrated Nuclear Security Support Plan (INSSP) - Cont'd

The overall objectives of an INSSP are:

- To identify and consolidate the nuclear security needs of an individual State an integrated document that includes the necessary nuclear security improvements, based on the IAEA's Nuclear Security Series documents.
- To provide a customized framework for coordinating and implementing nuclear security activities conducted by the State concerned and the IAEA.

3. Distribution of INSSPs by Region - Cont' d



3. Nuclear Security Information Management System (NUSIMS) - Cont' d

Nuclear Security Information Management System is based on a self-assessment methodology & designed to:

- Assist States in reviewing their nuclear security infrastructure
- Facilitate systematic identification and prioritization of States' nuclear security needs
- Assist States in coordinating and tracking their progress with respect to nuclear security
- Allow the IAEA to provide, upon request, a more tailored approach to meeting nuclear security needs on a State and/or regional levels

3. NUSIMS Structure - Cont' d

Nuclear Security Areas - NSA:

- NSA1: Nuclear Fuel Cycle Facilities and Nuclear Material
- NSA2: Radioactive Material and Associated Facilities and Activities
- NSA3: Transport Security
- NSA4: Detection Architecture and Capabilities
- NSA5: Response to Nuclear Security Events
- NSA6: Information and Computer Security

3. INSSP & NUSIMS Step Forward - Cont' d

Integration of INSSPs and NUSIMS

- The NUSIMS self-assessment results will be the basis for the joint development of INSSPs with MSs
- NUSIMS will help coordinate and monitor implementation of INSSPs by providing real-time information
- NUSIMS will serve as an information platform to review INSSPs for further continuous improvement of nuclear security

4. Education & Training

Human resource development is the key to sustainability

Education:

- Master of Science programme in nuclear security (IAEA NSS.12)
- Master programme will be 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 80 training events run per year
- Over 15,800 participants from 120 States trained since 2002
- Nuclear Security Support Centres
- E-learning course made available in all official languages in 2012

5. Major Public Events

- With a large number of participants and spectators, the scale of major public events (MPEs) makes them a vulnerable target
- The IAEA assists States in planning, training, and equipping themselves to address this reality
- Guards, guns and gates are no longer enough

IAEA support provided to:
Olympic Games (Greece, China)
Football World Cup (Germany, South Africa)
Pan American Games (Brazil, Mexico)
South American Games (Colombia)
UEFA Cup (Poland, Ukraine)
Africa Cup of Nations (Gabon)
2014 FIFA World Cup (Brazil)
2016 Olympic Games (Brazil)
2016 Para-Olympic Games (Brazil)

6. Risk Reduction

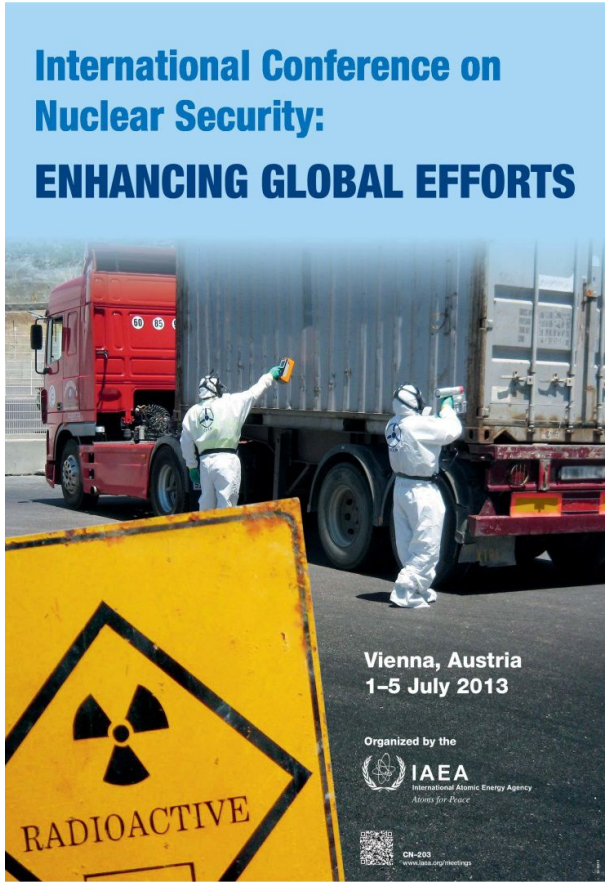
- 50 sites in 2013 in addition to over 110 PP upgrades from 2002-2012
- Around 2,060 kg of high enriched uranium (HEU) removed from research facilities across the globe under the Russian Research Reactor Fuel Return (RRRFR) Programme
- Over 6000 radioactive sources secured
- More than 4000 instruments provided

Nuclear Security Plan (NSP) - 2014-2017

International Conference on Nuclear Security 2013

Outputs:

- First ever IAEA conference with **Ministerial Declaration** on Nuclear Security
- > 1300 registered participants from 125 MSs, 34 at ministerial level, and 21 organizations
- Ministerial Session, 6 Main Sessions, 12 Technical Sessions



Outcomes:

Ministerial Declaration & President's Summary

Programme Elements of 2014-2017 NSP

- Needs Assessment, Information and Cybersecurity
- External Coordination
- Supporting the Nuclear Security Framework Globally
- Coordinated Research Projects
- Assessment through Self-assessment and/or through Peer Review Missions
- Human Resources Development
- Risk Reduction and Security Improvement

Activities for 2014 (1)

E.1 Information Collation and Analysis

Priorities:

- Continuous improvement in existing databases especially the Incident and Trafficking Database, (ITDB)
- Implementation of the Nuclear Security Information Management System (NUSIMS)
- Substantial growth in the number of Integrated Nuclear Security Support Plans (INSSPs)
- Information Security / Cyber Security

Providing a global forum Information Exchange for competent authorities, operators and other entities engaged in computer security activities relevant to nuclear security.

Organized by the IAEA's Division of Nuclear Security

in cooperation with:

INTERPOL, ITU

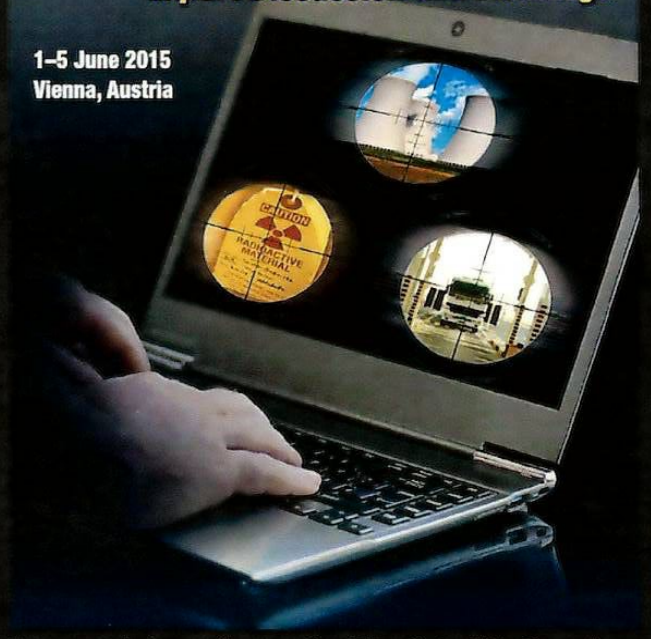
UNICRI, IEC

International Conference on

Computer Security in a Nuclear World:

Expert Discussion and Exchange

1–5 June 2015
Vienna, Austria



For more information contact the Scientific Secretary:
Mr Donald Dudenhoeffer at : compsec2015@iaea.org

Key dates:

14 Nov 2014 Submission of Abstract (with Forms A and B)
14 Nov 2014 Submission of Grant Application (Form C)
27 Feb 2015 Notification of acceptance of abstracts
2 May 2015 Submission full papers

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Activities for 2014 (2)

E.2 Internal and External Coordination

Priorities:

- Information Exchange Meetings planned for May and December 2014

- Ad Hoc meetings e.g. participation in 1540 Meetings, GICNT···etc.

Activities for 2014 (3)

E.3 Supporting the Global Nuclear Security Framework through the development of comprehensive guidance

Priorities:

- Agree road map with NSGC and to develop guidance accordingly
- Promote entry-into-force of the Amendment to the CPPNM
  - Sub-Regional Workshops in Mexico for Caribbean States, April 2014, and Russian speaking States, Venue and dates to be agreed & Seminar in June
  - National workshops

Activities for 2014 (4)

E.4 Coordinated Research Projects

Priorities:

- Assessment of Instrument Alarms and Information Alerts
- Consolidation the programme on Nuclear Security Assessment Methodologies (NUSAM).
- New CRPs on Nuclear Security Culture, Accountancy and Control of Materials for Security and on Transport Security under consideration

Activities for 2014 (5)

E.5 Assessment

Priorities:

IPPAS INSServ Missions

- To continue to meet the increasing demand for IPPAS and INSServ missions using the modular approach.
- To support Member States in establishing, improving and maintaining a national nuclear security regime.

Activities for 2014 (6)

E.6 Human Resources Development

Priorities:

- Strengthening INSEN Network
- Review of Masters' Pilot Project
- Revision of NSS12

- Strengthening NSSC Network
- Finalize Modularization of Training Courses
- Further advances in e-learning

Activities for 2014 (7)

E.7 Risk reduction and security improvement (1)

Priorities for:

(1) Nuclear material and nuclear fuel cycle facilities

- Assist MS to use threat –based and risk informed approach to regulate security in nuclear industry (DBT review)

- Finalize the IAEA Nuclear Security Culture Self Assessment Methodology and Guidance on enhancing the Nuclear Security Culture

- Practical implementation of INFCIRC/225 in Nuclear Power Plants, Research Reactors and for the back end of the Fuel Cycle

Activities for 2014 (7)

E.7 Risk reduction and security improvement - Cont' d

Priorities for:

(2) Border Monitoring Programme

- To assist States to reduce the risk that nuclear or other radioactive material could be used in criminal or intentional unauthorized acts.

(3) Transport security

- Assist MSs in the upgrading of the National transport Security Systems through the preparation and implementation of "model transport security exercises": Table top exercises and practical demonstrations

Conclusions

Conclusions

- While responsibility for nuclear security within a State rests entirely with that State, consequences of a major security failure would be extremely grave and could transcend borders.

- IAEA is a worldwide platform promoting international cooperation in nuclear security involving more than 160 countries & over 20 Organizations and Initiatives.

Conclusions - Cont' d

- High priority to facilitates adherence to and implementation of international legal instruments related to nuclear security, in particular 2005 Amendment to the CPPNM.

- Specific assistance provided through INSSP, Peer Reviews and Advisory Services, E&T, Physical Protection Upgrades, technical and regulatory support to help States meet their national and international obligations.

Conclusions - Cont' d

- Let's continue to work together to protect people, society and the environment

- No one alone can do it, but together we can do it !

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…Thank you for your attention

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