

NUCLEAR SECURITY OF MATERIALS AND FACILITIES SUB-PROGRAMME

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MATERIALS AND
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PROGRAMME

28 March 2013, Version 0.1

Presentation layout

- Cross –Cutting Projects
- Nuclear Security for Nuclear Fuel Cycle
- Control and Accountability of Nuclear Material
- Nuclear Security for Radioactive and Associated Facilities
- Transport Security

CROSS –CUTTING PROJECTS

THREAT MANAGEMENT AND SECURITY ASSESSMENT METHODOLOGIES- DESIGN BASIS THREAT (DBT)

Coordination Research Project

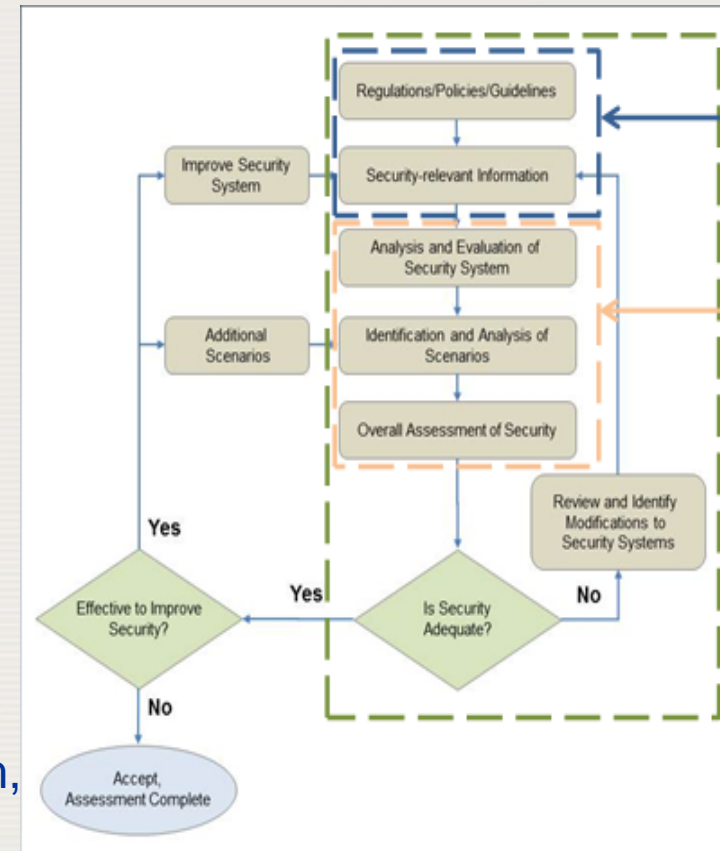
- CRP completed 2012-Working material available
- New Project “NUSAT”

Programme Development

- Revision of existing training material on Design Basis Threat (DBT)

Human Resource Development

- DBT workshop (05)- South Africa, Vietnam, Jordan, Libya, Poland)



CROSS –CUTTING PROJECTS

NUCLEAR SECURITY CULTURE



Development of Technical/Guidance Documents

- NST026 Self-Assessment of Nuclear Security Culture in facilities and activities that use nuclear and/or radioactive material (Technical Guidance)
 - TM (01) on Self-Assessment of Nuclear Security Culture in facilities and activities that use nuclear and/or radioactive material
- NST027 Enhancing Nuclear Security Culture in facilities and activities that use nuclear and/or radioactive material (Technical Guidance)

Human Resource Development/Education Programme

- Training material available
- IWS (01), RWS (01)
- NWS (05)-Slovakia, Bangladesh, Venezuela, Kazakhstan, Jordan

Self-Assessment Trial on Nuclear Security Culture at Research Reactor in Indonesia



- Survey and Interview as a trial run were done at 3 facilities of BATAN
- 624 and 128 employee were participated in Survey and Interview (60% and 12% of totally 1035 employee of three facilities) .Totally 41 staff were contributed to implement the trial.
- The survey form was developed based on the IAEA draft TG. 29 statements the optimal time is 1 hour were provided in the Survey.
- The self-assessment process identified several gaps and deficiencies; a corrective action plan was developed to address areas to improve.



CROSS –CUTTING PROJECTS

IMPLEMENTATION OF INFCIRC-225/REV 5

Programme Development

- Consultancy Meeting (02) were held to develop training materials for regional and international training courses

Human Resource Development/Education Programme

- Training material available (for five days workshop)
- ITC (01)-China
- RTC (02)-Japan, Germany



CROSS –CUTTING PROJECTS

INTERNATIONAL PHYSICAL PROTECTION ADVISORY SERVICE (IPPAS)

Missions

- IPPAS missions (04)
 - Seibersdorf Labs
 - Hungary
 - USA
 - Australia

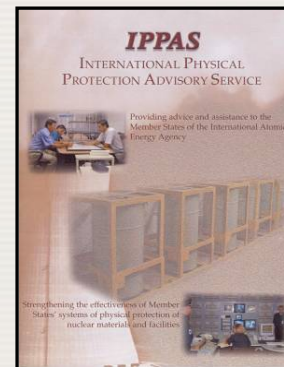
International Seminar

- Seminar(01)-France (share experience and best practices from conducting IPPAS mission)

Human Resource Development/Education

Programme

- IPPAS Workshop (01)-Republic of Korea



CROSS –CUTTING PROJECTS

DEVELOPMENT OF SECURITY PROGRAMME/UPGRADES FOR MEMBER STATES

Pakistan

- Security upgrades at Medical Center (11)
- Establishment of Physical Protection Interior Labs
- Establishment of Physical Protection Exterior Labs
- Human Resource Development- NTC (5)

India

- Human Resource Development-RTC (02)
 - Design and Evaluation of Physical Protection Systems for Nuclear Material and Nuclear Facilities
 - Protection against Insider Threat

Kazakhstan

- Human Resource Development- NTC (02), Technical Visit (01)



CROSS –CUTTING PROJECTS

Cuba

- Security upgrades at **11** sites/locations

Venezuela

- Security upgrades at **13** sites/locations

Costa Rica

- Security upgrades at **05** sites/locations

Honduras

- Security upgrades at **04** sites/location

NUCLEAR SECURITY FOR NUCLEAR FUEL CYCLE

GENERAL ACTIVITIES

PHYSICAL PROTECTION OF NUCLEAR MATERIAL AND NUCLEAR FACILITIES

Programme Development

- An Implementing Guide on "Physical Protection of Nuclear Material in Use and Storage and of Nuclear Facilities " is under development
- A consultancy meeting was held to finalize the programme on nuclear security for fuel cycle installations and associated activities

Development of Guidance Documents

- NST023: Physical Protection of Nuclear Material in Use and Storage and of Nuclear Facilities
- NST029: Evaluation of physical protection system

Nuclear Security For Nuclear Fuel Cycle

Human Resource Development

- Training material available
- ITC (03)- Russian Federation (02), USA (01)
- RTC (06)-China, South Africa, Republic of Korea, Russian Federation, UK (02)
- NTC (05)-Turkey, Kuwait, Iran, South Africa, Vietnam
- Introductory workshop for instructors in connection with ITC-24 (USA)

Nuclear Security For Nuclear Fuel Cycle

SABOTAGE AND INSIDER THREAT

Programme Development

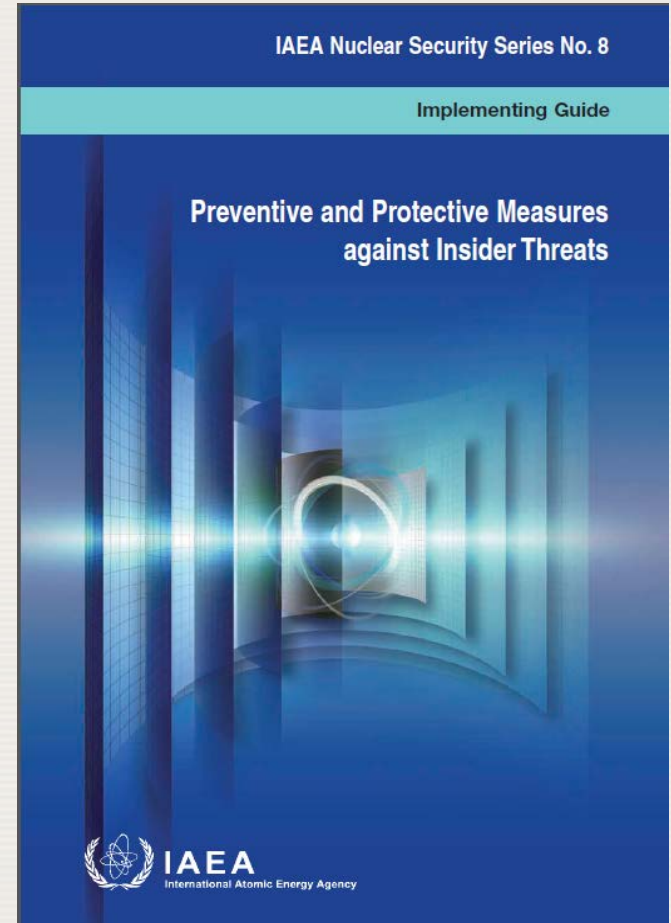
- Consultancy meetings were held on insider Threat Guidance and Curriculum

Development of Technical Guidance Documents

- Revision of NSS-08 –Preventive and Protective Measures against the Insider Threats

Human Resource Development

- Training material available
- ITC (01)-Malaysia
- RTC (01)-Japan



NUCLEAR SECURITY FOR NUCLEAR FUEL CYCLE

NUCLEAR SECURITY FOR FRONT END OF FUEL CYCLE

Programme Development

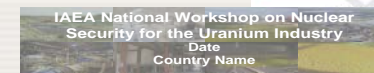
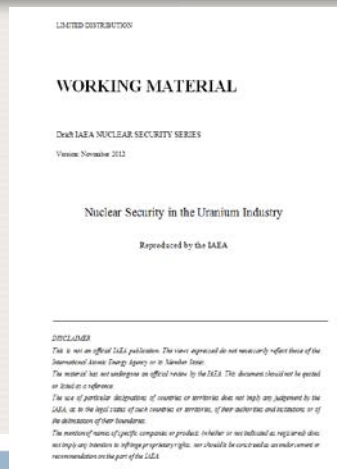
- Review the first draft of the training materials for Uranium Industry
- Coordination meeting with Benin and Niger

Development of Technical Guidance Documents

- NST028: Prudent Management Practices for Nuclear Security in the Uranium Industry (Technical Guidance)
- Working material available

Human Resource Development

- Training material is being finalized
- NTC (02)-Benin, Zambia
- Support to Kazakhstan



Day	Time	Content	Speakers
Sunday, Aug 25	16:00	Speakers' Meeting (for all speakers)	
	17:00	Workshop Registration/Reception (Location TBD)	
	19:00		
Day 1			
Session Chair: Mr. Paul Brédard, IAEA Consultant			
Name of Building			
Room Location			
Note: Times dependent on translation needs			
Monday, Aug 26	09:00	Welcoming Remarks	Mr. M. Clarke, IAEA
	09:30	Introductory Remarks	Mr. P. Brédard, Session Chair, IAEA Consultant
	09:30	Objectives for Nuclear Security for the Uranium Industry	Boris McGee, USDOE
	09:30-10:15	International Nuclear Security Programme for the Uranium Industry	Mr. M. Clarke, IAEA
	10:15	Coffee Break / Refreshments	
	10:45	Current Approach for Regulating Transport of Radioactive Materials	Zambia Representative
	11:15	Uranium Exploration and Future Production in Zambia	State and Industry Representative
	12:00	Lunch	
	12:30		
	14:00	Nuclear Security at the Industry Level for an Operating Mine (Panoramic)	Panlath Representative
	14:45	Regulatory Assessment Exercise (Part 1) "Safety and Security Coordination"	Mr. P. Brédard, CNRS and for NRC
	15:30	Coffee Break / Refreshments	
	16:00	Regulatory Assessment Exercise (Part 2)	Mr. P. Brédard, CNRS and for NRC
	16:30	Panel / Close-Out Discussions	Mr. P. Brédard
	17:00		
	18:00		
20:30	Workshop Dinner at location TBD	Hosted by TBD	

Nuclear security has developed a strategy to guide a programme to assist IAEA Member States to implement best practices in the uranium industry to prevent, detect, and/or intentional unauthorized acts involving or directed at associated facilities or activities.

NUCLEAR SECURITY FOR NUCLEAR FUEL CYCLE

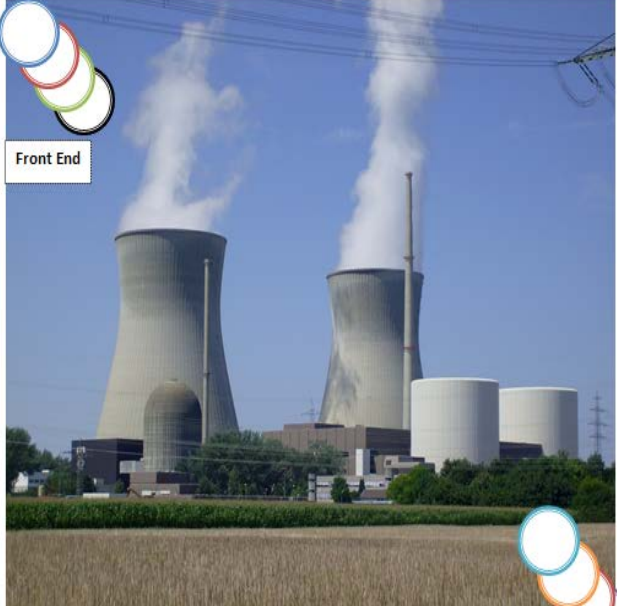
NUCLEAR SECURITY FOR NUCLEAR POWER Plants

Programme Development

- Comprehensive programme 2012-2017
- Consultancy meeting (01)

Human Resource Development

- ITC (01)-Tomsk, Russian Federation
- NTC (01)- Argentina



Front End

Back End

DEVELOPMENT OF A COMPREHENSIVE PROGRAMME FOR NUCLEAR POWER PLANTS (2012-2017)

The Office of Nuclear Security has developed a strategy to build a comprehensive programme to assist IAEA Member States to implement NFC activities.

NUCLEAR SECURITY FOR NUCLEAR FUEL CYCLE

NUCLEAR SECURITY FOR RESEARCH REACTORS

Programme Development

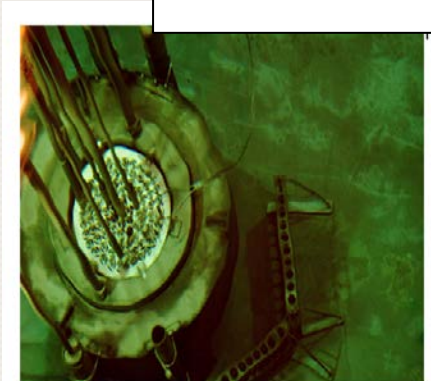
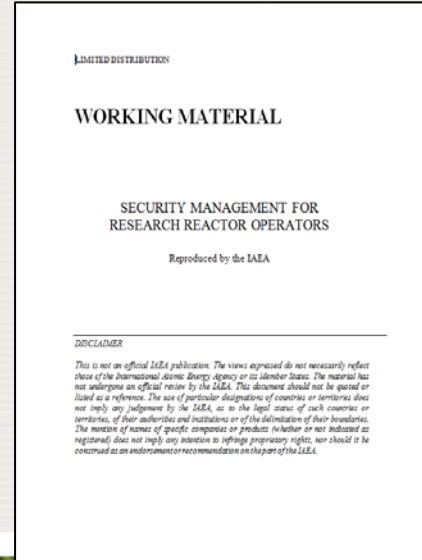
- Consultancy meeting (07)

Development of Technical Guidance Documents

- NST031: Management for nuclear security in the operation of research reactors
- TM (01)- Joint with NEFW

Human Resource Development

- Development of Training Material is in progress
- International workshop on interface between Safety and Security of Research



DEVELOPMENT OF A COMPREHENSIVE PROGRAMME FOR NUCLEAR RESEARCH REACTORS (2012-2017)

In line with the objectives of the current Nuclear Security Plan 2010-2015, the objective of the Nuclear Security Programme for Nuclear Research Reactors (RR) is to develop a comprehensive, systematic, and focused approach to assist Member States to establish, enhance, and sustain nuclear security at research reactors.

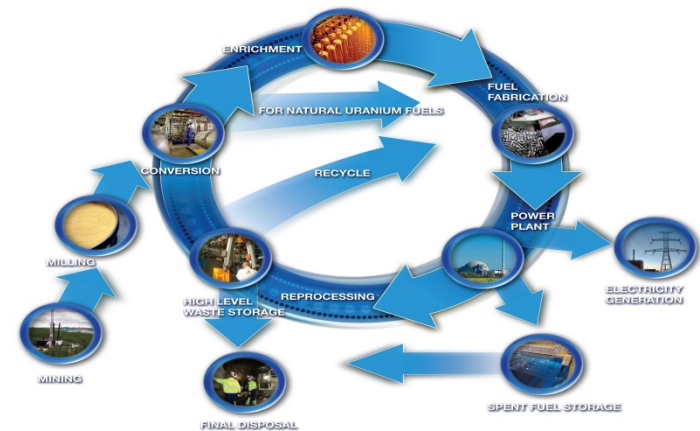
NUCLEAR SECURITY FOR NUCLEAR FUEL CYCLE

BACK END PROCESS

SPENT FUEL MANAGEMENT AND RADIOACTIVE WASTE MANAGEMENT

Programme Development

- A Consultancy meeting was held on Developing Nuclear Security Approaches for Long-term Storage of Spent Fuel



CONTROL AND ACCOUNTABILITY OF NUCLEAR MATERIAL

NMAC TOOLS AND METHODS

Programme Development

- Consultancy meeting (06)

Development of Technical Guidance Documents

- NST021 Nuclear Material Accounting and Control for Nuclear Security (Implementing Guide)

Human Resource Development

- RTC (01)- **Austria**

Mission

- Planning mission (01)- **Oman**
(with the collaboration of Safeguard)



DEVELOPMENT OF A
COMPREHENSIVE PROGRAM ON
NUCLEAR MATERIALS ACCOUNTING
AND CONTROL (NMAC) FOR
NUCLEAR SECURITY AT FACILITIES
(2012-2014)



6/1/2011

Comprehensive Program Plan

The Office of Nuclear Security has developed a strategy to build a comprehensive program to assist IAEA Member States to implement NMAC methodologies to deter and detect theft of nuclear materials by facility insider adversaries.

NUCLEAR SECURITY FOR RADIOACTIVE SOURCES AND ASSOCIATED FACILITIES

Programme Development

- Consultancy meeting (09)
- Consultancy Meeting on the Security of Borehole Disposal Facilities

Development of Technical Guidance Documents

- NST024: Management for the security of radioactive material and associated facilities (Implementing Guide)
- TM (01)

Human Resource Development

- RTC (05)-Argentina, Thailand, Morocco, UAE, China
- NTC (02)-Venezuela, Philippines
- IPPAS workshop (02)- TBD

Physical Protection Upgrades

- PP upgrades- Cuba, Georgia, Lebanon, Morocco, Venezuela, Armenia, Libya, Angola



CHARTER FOR THE DEVELOPMENT OF A NUCLEAR SECURITY PROGRAM FOR RADIOACTIVE MATERIALS AND ASSOCIATED FACILITIES (2012-2014)



7/15/2012

Comprehensive Program Charter

The Office of Nuclear Security has developed a strategy to build a comprehensive program to assist IAEA Member States to implement security methodologies for radioactive materials and associated facilities.

TRANSPORT SECURITY

Programme Development

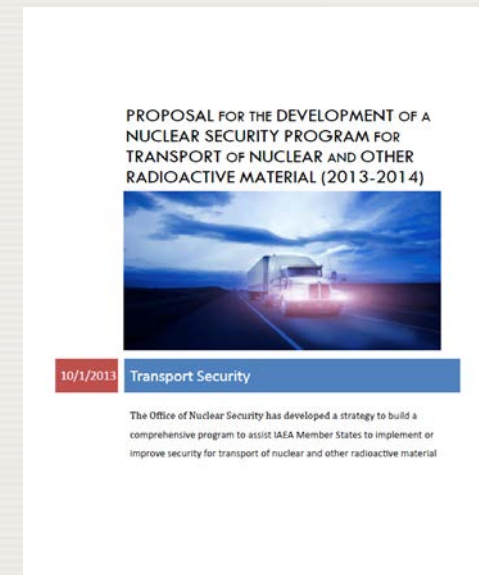
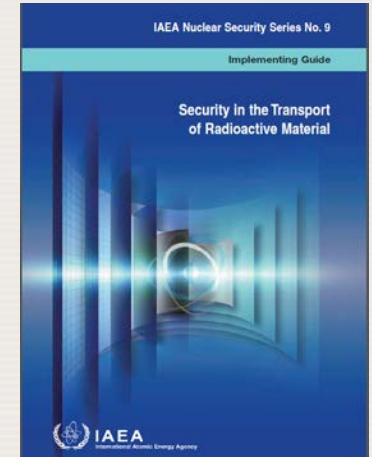
- Consultancy Meeting (02)

Development of Technical/Guidance Documents

- NST017: Security of Nuclear Material in Transport (Implementing Guide)
- Revision of NSS-09- Security in the transport of Radioactive Material

Human Resource Development/Education Programme

- Training material available
- ITC (01)-USA
- RTC (05) -Germany(01), Niger, Mexico, Indonesia, Germany (01)
- NTC (05)-Brazil, Burkina Faso, Mauritania, Morocco, Ecuador



TRANSPORT SECURITY

Development of Model exercises

- Transport of nuclear material, to support MS to apply NSS No.13 recommendations
 - understand the
 - need for exercises
 - types, nature and scope of exercises
 - experience one or more example exercise(s)
 - table top, field
- Pilot exercise to test
- MS experiences are welcomed!



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Thank you for your attention!