

HARMONIZATION OF NUCLEAR SAFEGUARDS INFRASTRUCTURE DEVELOPMENT

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Department of Energy/
National Nuclear Security Administration

Safeguards Infrastructure Development

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□ Issue

- Newcomer states with limited experience with nuclear energy may not have the safeguards infrastructures necessary to address the quantities of nuclear material and technology associated with a new/expanding nuclear power program as well as the control of nuclear related trade

□ Opportunities for Cooperation

- Donor countries cooperate both bilaterally and regionally with newcomer countries to develop the infrastructure necessary for effective safeguards

Definition of Safeguards Infrastructure

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- Safeguards infrastructure includes the laws, regulations, administrative systems, procedures and technical capabilities at the state and facility levels that assist the State System of Accounting and Control in implementing State's safeguards agreements

Benefits for Newcomers

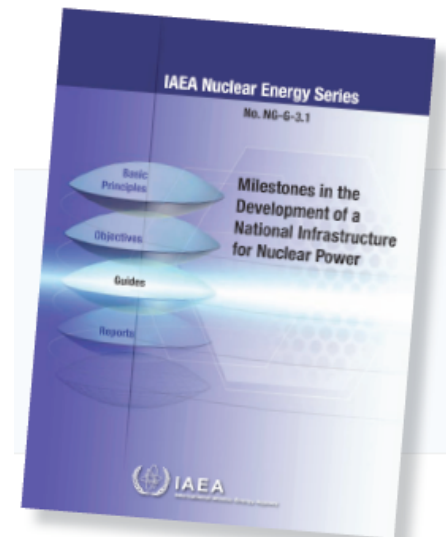
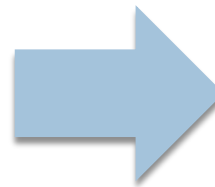
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- Infrastructure development at the state and facility levels supports the SSAC and implementation of safeguards for international and national purposes
- Helps newcomers understand the synergy between safety, security, and safeguards and importance of early integration of safeguards into the whole process
- Supports development of the human resources necessary to form the basic organizational, managerial and technical framework to operate and regulate a safe, secure, and peaceful nuclear power program

Coordination with IAEA

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- Infrastructure development programs are closely coordinated with the IAEA Milestones Process, which provides guidance on developing the necessary infrastructure for countries considering nuclear power
- This provides newcomer states with an integrated context within which safeguards can be considered and developed



Harmonization Effort: Why Harmonize?

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- Due to the significant increase in states focusing on nuclear power programs, many countries are providing support to newcomer states to develop their nuclear infrastructure
- Given the limited existing capacities for supporting newcomers, it is necessary to ensure:
 - Coordinated effort
 - Consistency of message between supporting countries, as well as between supporting countries and IAEA
 - Effort should provide maximum benefit to newcomer states while not overwhelming existing capacity for supporting newcomers
- Therefore, there is a need for the harmonization of these efforts between the donor states, the IAEA, and the states receiving assistance

Harmonization Effort: 2009 Meeting

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- In June 2009, the first meeting for the “Harmonization of Safeguards Infrastructure Development” was held in Vienna
 - Representatives from ABACC, China, EURATOM, France, Germany, Japan, Korea, UK, USA, IAEA

- Participants noted:
 - Potential overlaps as well as gaps in international activities
 - Cooperation should be driven by needs of newcomer states
 - Need clear guidance on how new programs should consider safeguards
 - Need to use existing mechanisms (e.g. ISSAS, INIR)
 - Coordination between donor countries is vital
 - Need for mechanisms to share information (website)

Harmonization Effort: 2010 Meeting

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- In February 2010, the Second meeting for the “Harmonization of Safeguards Infrastructure Development” was held in Vienna.
 - Representatives from Korea, Japan, EURATOM, USA, IAEA

- Participants concluded:
 - Development of shared calendar
 - Cooperation with other safeguards organizations, such as the APSN (Asia Pacific Safeguards Network), should be considered
 - Important to consider the synergies between safeguards, security, safety, and nuclear operations
 - Regional cooperation is an important mechanism to consider
 - Where appropriate, donor countries may consider joint outreach activities based on information provided

As a First Step: Creation of a Website

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Home - Harmonization of International Nuclear Safeguards Infrastructure Devel...

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Harmonization of International Nuclear Safeguards Infrastructure Development

View All Site Content

Documents

- Shared Documents
- Meetings

Lists

- Calendar
- Tasks
- Contacts

Discussions

- Member Discussion

Sites

People and Groups

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Welcome Members

A number of countries around the world are providing safeguards infrastructure assistance to other countries. Therefore, the purpose of this website is to facilitate donor countries working with each other to promote the coordination, or "harmonization", of these bilateral assistance programs.

Countries are encouraged to share information related to their bilateral, and other, assistance programs. Please note that this website is restricted access. However, sensitive information should not be posted on this site.

Information posted on this website will be accessed by the participants. This sharing of information can help:

- Avoid duplication of efforts by donor countries;
- Identify any gaps in these assistance programs, and
- Promote a consistent message in support of the international safeguards regime as administered by the International Atomic Energy Agency.

The objective of the Harmonization effort is to:

Links

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Internet

Harmonization: Development of a Network

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- A Website is only a tool. The final objective is to establish and maintain a network able to:
 - Share information:
 - ▣ Activities planned and conducted (where, when and who)
 - ▣ Exchanging teaching or training materials
 - Communicate:
 - ▣ Develop a common understanding and terminology
 - Optimize activities:
 - ▣ Discuss ways to interface with supported countries and to receive feedback from conducted activities

Point of Contact

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Back Up Slides on International Nuclear Safeguards and Engagement Program

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INTERNATIONAL NUCLEAR SAFEGUARDS AND ENGAGEMENT PROGRAM

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Department of Energy/
National Nuclear Security Administration

International Nuclear Safeguards and Engagement Program Overview

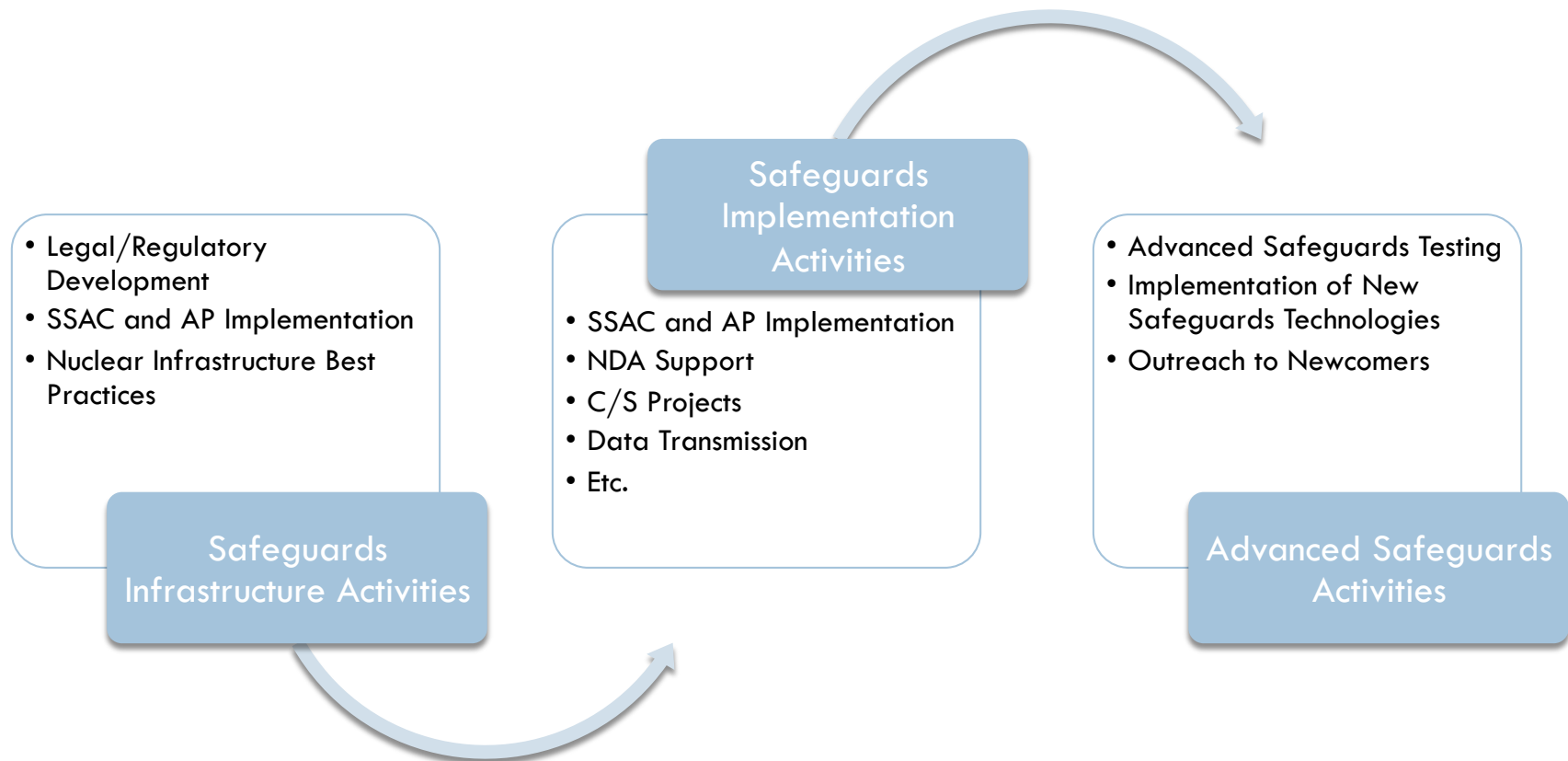
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- Mission
 - Collaborate with international partners to strengthen international safeguards at all stages of nuclear development

- Three Areas of Cooperation
 - Safeguards Infrastructure Development
 - Safeguards Implementation Cooperation
 - Advanced Safeguards Technology Testing

International Nuclear Safeguards and Engagement Program Overview

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INSEP's Global Partnerships

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Safeguards Infrastructure Program

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□ Mission

- Safeguards infrastructure cooperation to countries with credible plans to introduce civil nuclear energy

□ Vision

- Cooperate with international partners through technical engagement projects to develop the safeguards infrastructure necessary for safe, secure and peaceful nuclear power programs

Current INSEP Infrastructure Partners

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- Current bilateral infrastructure arrangements with:
 - Algeria– The Commissariat à l’Energie Atomique, 2006
 - Egypt– Egyptian Atomic Energy Authority, 1994
 - Indonesia– BAPETEN, 2004
 - Libya– Libyan Bureau of Research and Development, 2005
 - Mexico– National Institute of Nuclear Research of Mexico, 1982
 - Morocco– Nat’l Center for N. Energy Sciences and Techniques, 1994
 - Thailand- Office of Atoms for Peace, 1997
 - Vietnam- Ministry of Science and Technology, 2007

Areas of Technical Collaboration

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- Nuclear Legislation and Regulatory Development for Safeguards
- Strengthening the State System of Accounting for and Control of Nuclear Material (SSAC)
- Additional Protocol Implementation
- Human Resources Development
- Promoting Best Practices:
 - ▣ Reactor operations
 - ▣ Radiation protection
 - ▣ Quality assurance and quality control
 - ▣ Low level radiation waste minimization and handling
 - ▣ Environmental radiological monitoring
 - ▣ Emergency management



Recent Regional Successes

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- ❑ Radiation Measurements Cross Calibration (Bahrain) March 2008
- ❑ Workshop on “Middle East Nuclear Infrastructure Preparedness” (Amman, Jordan) February 2009
- ❑ Workshop on “Human Resources for Civilian Nuclear Power: Developing a National Strategy” (Rabat, Morocco) March 2009
- ❑ Three-Week Technical Training Workshop on International Safeguards (DOE National Labs) May 2009



Recent Bilateral Successes

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- Provided support for the development of an International Training Center in Rabat, Morocco
- Completed pilot energy planning course for Jordan (regional event upcoming)
- Providing LLRW evaporator system and training for Vietnam
- Ongoing assistance with Vietnam and Thailand on SSAC and AP
- Finalized joint assessment and “road map” for cooperation with Algeria on radiation protection and health physics (activities underway)

Engagement Process

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- Interest in cooperation
- Initial engagement exploratory visit (U.S. Interagency)
- Arrangement/Agreement for cooperation developed
- Joint road map/needs assessment process
 - ▣ Develops collaborative path forward
- Annual coordinating meeting
 - ▣ Technical/administrative

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