

International Nuclear Safeguards Engagement Program (INSEP) Overview



Office of Nonproliferation and International Security (NIS)

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International Nuclear Safeguards Engagement Program (INSEP) *Program Overview*

International Nuclear
Safeguards Engagement
Program (INSEP)

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

Objectives:

- Establish safeguards infrastructure with partners that have credible plans for nuclear power or active civil nuclear research programs
- Increase the effectiveness and efficiency of safeguards in countries with operating nuclear power programs
- Test NGS technologies in advanced facilities and modify mature technologies to meet specific safeguards needs of partner countries and the IAEA

International Nuclear Safeguards Engagement Program (INSEP)

Types of Engagement

- Nonproliferation and Safeguards Regime Overview
- Fuel Cycle Fundamentals
- National and International Legal Instruments
- Additional Protocol Implementation
- State Systems of Accounting for and Control of Nuclear Material
- Safeguards Regulations
- Inspections and Enforcement
- Operator-Regulator Interactions

Safeguards Infrastructure Development

Enhancing Safeguards Implementation

- Physical Inventory Taking
- Design Information Questionnaire/
Design Information Verification
- Material Accounting and Control
Measurement and Reporting
- Holdup Measurements
- Quality Assurance and Quality Control
- Containment and Surveillance

- Remote monitoring and process monitoring systems
- Environmental sampling analysis
- Advanced safeguards technologies for bulk handling facilities
- Information systems and processing

Advanced Safeguards Testing

Example Engagement Methods

- Seminars for policy makers
- Safeguards legislation/regulation review and preparation
- Training for regulatory staff and inspectors
- Technical training for operator staff
- Train-the-trainer workshops
- Laboratory/facility tours and fellowships
- Safeguards and nonproliferation curriculum development
- Application of facility-specific safeguards systems
- Development and testing of advanced safeguards technologies



Office of
**Nonproliferation
and International
Security (NIS)**

Nuclear Safeguards
and Security

International Nuclear Safeguards Engagement Program (INSEP) *Current Partners*



Australian Government
**Australian Safeguards and
Non-Proliferation Office**



KAERI Korea Atomic Energy Research Institute



ASIA-PACIFIC
SAFEGUARDS NETWORK



EUROPEAN
COMMISSION



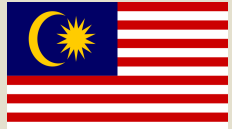
Current Bilateral Partners

Algeria	China	Jordan	Morocco	Thailand	ABACC
Argentina	Egypt	Kazakhstan	Philippines	Tunisia	Euratom
Armenia	France	Kuwait	Serbia	UAE	
Brazil	Indonesia	Libya	South Africa	Ukraine	
Myanmar	Japan	Malaysia	South Korea	Vietnam	



Indonesia - Partner since 2004

- INSEP's most active safeguards partnership in Southeast Asia.
- Collaborated on regulatory development, safeguards training and operations, AP implementation, safeguard inspections, and NDA.
- Recently collaborated on AP outreach to third countries in Southeast Asia.



Malaysia - Partner since 2010

- Collaborated with INSEP on strengthening capabilities to ratify the AP.
- Plans to expand cooperation in areas of human resource development for safeguards, NDA, and domestic safeguards inspections.



Myanmar - Partner since 2013 **NEWEST PARTNER IN THE REGION******

- Initiated collaboration on strengthening capabilities to implement the AP and establishing an effective SSAC.
- Also supports Myanmar's participation in international workshops, with the aim of bringing key players into the fold of the international nonproliferation community.



Philippines - Partner since 2010

- Collaborated on AP-related projects to strengthen implementation of the Protocol.
- INSEP and PNRI will leverage ongoing cooperation in AP to engage in SSAC activities, including information management, domestic inspections and NMC&A.



Thailand - Partner since 1997

- Current joint activities include the development of regulatory framework for safeguards, preparations for entry-into-force of the Additional Protocol, strengthening the SSAC, research reactor operations, and radiation protection and health physics.



Vietnam Partner since 2007

- Engagement with VINATOM and VARANS in radiation protection, research reactor operations, radioactive waste management, and AP implementation and SSAC.
- Will focus on safeguards information management, AP outreach, establishment of a safeguards laboratory and national safeguards inspections in the next two years.



New Partners

- In 2014-2015, INSEP seeks to initiate cooperation with several **new countries in Asia Pacific, namely Timor Leste (East Timor), Lao PDR, Cambodia and Bangladesh.**
- Initial engagement will center around assistance in AP and infrastructure to support implementation of Modified SQP for current SQP states.

Regional Efforts in Coordinating Training: Joint Collaboration with Japan and Korea

- **Centers of Excellence (COEs) in ROK and Japan**
- **Streamline safeguards training and course offerings to minimize overlap and ensure that interested countries' priority needs are met most effectively.**
- **Training providers intend to leverage their expertise, facilities and experiences to the maximum benefit of participants**

Regional Efforts in Coordinating Training: Joint Collaboration (II)

ROK

- June 2014 DOE/NNSA supported ROK's KINAC in launching first international safeguards (and security) course at Korea's new International Nuclear Nonproliferation and Security Academy (INSA).
- 30 participants from 12 countries attended INSA's "Fundamentals of Nuclear Safeguards." Upon KINAC's request, DOE/NNSA's experts participated as lecturers in this course.
- In 2015, DOE/NNSA and KINAC will continue their cooperation in the area of safeguards training in support of INSA

Regional Efforts in Coordinating Training: Joint Collaboration (III)

JAPAN

- In July 2014, DOE/NNSA and Japan's Integrated Support Center for Nuclear Nonproliferation and Nuclear Security (ISCN) began cooperation on safeguards training, with initial focus on domestic safeguards inspections.
- ISCN and DOE/NNSA will also exchange information and experiences in domestic safeguards inspections.
- DOE/NNSA was also invited by Japan Atomic Energy Agency (JAEA) to help support the AP outreach workshop in Malaysia in August 2014.

DOE/NNSA Cooperation With IAEA

Develop training materials using IAEA's latest guidance and policies as foundation.

- Reviewed by IAEA experts
- Routinely invites IAEA to participate in its training workshops and courses
- When applicable, DOE/NNSA experts participate in IAEA-sponsored workshops



Strong partnership between DOE/NNSA and the IAEA *improves exchange of information on training courses to improve training methods and avoid overlap.*

Upcoming DOE/NNSA Training Offerings



Domestic Safeguards Inspections

- First workshop on this topic will take place in Jakarta (September 8-12). Joint effort between DOE/NNSA, BAPETEN and APSN

Information Management

- Pilot effort launched with VARANS to help strengthen national information management system for safeguards

Quality Management and Quality Control in Safeguards

- DOE/NNSA is in the process of developing new training in QA/QC and Integrated Management System.



Message from the Chair

The Asia-Pacific Safeguards Network (APSN) is an important initiative of the Asia-Pacific region that reflects the commitment of the community of safeguards authorities in the region to the peaceful uses of nuclear energy underpinned by...

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The Importance of Safeguards

With growing interest worldwide in harnessing nuclear power to meet energy security needs, it is crucial for countries to support and abide by international safeguards systems that ensure the peaceful use of nuclear technologies and materials....

[Read More](#)

Upcoming Events

APSN Working Group Meetings

Discussion of working group topics.

Date: 09/01/2014

5th Plenary Meeting

APSN and the Department of Atomic Energy Agency would like to extend an invitation to all APSN members to participate in the 5th Annual APSN Meeting. This event presents an opportunity for all APSN members to convene and take stock of recent...

Date: 09/01/2014

International Workshop on the Fundamentals of Domestic Safeguards Inspections

Domestic inspections play an important role in strengthening the national oversight of nuclear and radiological assets and also support implementation of international safeguards. By conducting domestic safeguards inspections, a State Authority can...

Modernizing APSN's online presence to provide rapid and convenient interchange of safeguards knowledge, best practices and training opportunities

International Nuclear Safeguards Engagement Program (INSEP) *Conclusions*



- Cooperation supports Member States, IAEA, and international safeguards system
 - Working with other outreach partners to leverage resources and expertise
- INSEP has a strong programmatic mandate
- Rapid response has important value
 - U.S. Government
 - International safeguards system