

JAEA's Activities in Safeguards Cooperation & Possible Contribution to APSN

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Outline

- A. JAEA/NPSTC's Activities**
- B. Nuclear Nonproliferation Capacity Building Support in Asia**
- C. International Cooperation for Safeguards Technology Development**
- D. JAEA's Possible Contribution to APSN**

A. JAEA/NPSTC's Activities (1/2)

Policy Research, "Think Tank"

- Comprehensive Policy Studies on Nuclear Nonproliferation based on technical knowledge and experience
- Support the Government's policymaking
- Information analysis and distribution

Nuclear Material Protection, Control, and Accountancy

- Nuclear material accountancy and safeguards
- Physical protection
- Nuclear material transportation

Research & Development of Nonproliferation Technology

- Nonproliferation technology including advanced safeguards & proliferation resistance technology
- nuclear security technology
- International & technical contribution and cooperation to strengthen nuclear nonproliferation regimes.
- Transparency technology for nonproliferation cooperation in the Asia Pacific.
- Analysis of environment swipe samples



Technical Support for Nuclear Nonproliferation & Disarmament

- Technical Contribution & Support of CTBT verification system
- Cooperation for Russian surplus weapon plutonium disposition.



Human Resource Development

- Development of next generation experts in collaboration with the Univ. of Tokyo.
- Asian Safeguards Training Course
- Provide experts to the Government and international organizations

Goals

- ❑ As a "Center of Excellence (COE)," the Goals of JAEA/NPSTC are:
- ❑ To Promote Peaceful Use of Nuclear Energy as well as
- ❑ To Support Nuclear Nonproliferation Policy in Japan.

A. JAEA/NPSTC's Activities (2/2)

Safeguards Applications in JAEA Facilities

- ◆ IAEA Broader Conclusion to Japan *on 14 June 2004*
- ◆ Integrated Safeguards Approaches : *Since Sep. 2004*
Site level (JAEA)
 - JNC-1(Tokai Nuclear Fuel Cycle Facilities): *Since 1 Aug. 2008*
 - JNC-4(Monju): *Since 19 Nov. 2009*
 - JNC-2(Joyo), JNC-5(Ningyo): *Under a review process*

Total: 34 facilities

OTR: Other type reactors

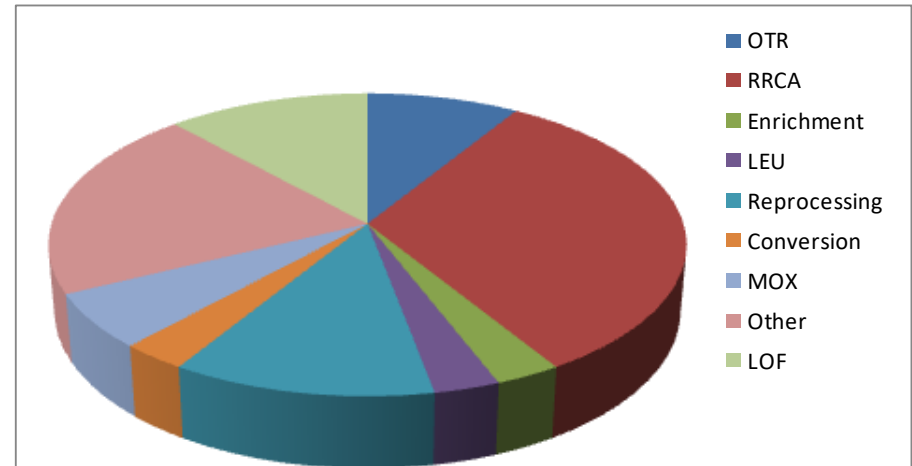
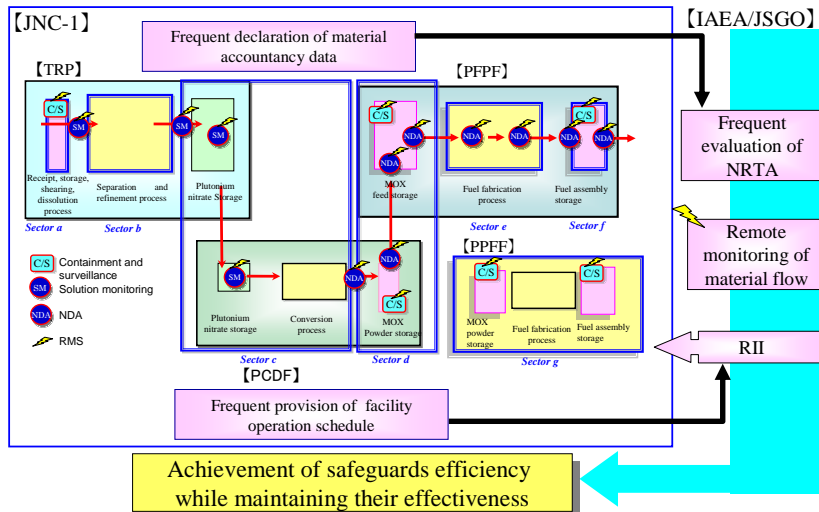
RRCA: Critical assemblies and research reactors

LEU: Low enrichment uranium

MOX: MOX fabrication facilities;

LOF: Location Outside Facilities

Integrated safeguards approach for the JNC-1 site



K. Ishiyama et al, "Operator's Experience on Random Inspection for Reprocessing Plant at JNC-1 site", INMM 50th Annual Meeting, Tucson USA (2009)

B. Nuclear Nonproliferation Capacity Building Support in Asia

Objective

- To achieve compatibility between peaceful use of nuclear energy and nuclear nonproliferation in Asian countries by sharing knowledge of and experience in safeguards applications & P.P.

Activities

Asian Program

- Assisting to strengthen accounting for and control of nuclear material at facilities
- Supporting the process towards AP ratification

Safeguards Training

- Safeguards Training Course
- Regional Training Course on SSAC
- Assisting the understanding of IAEA safeguards
- Training for the implementation of SSAC
- Exercising for NDA , C/S, R.M., & other measures

Dispatching Lecturers (Invited by IAEA)

- Regional Workshop on Nuclear Material Accountancy and Control at Facilities
- International Physical Protection Advisory Service

Example: Safeguards, SSAC Training Course in JAEA

JAEA regularly provides participants from Asia, Pacific and former Soviet Union with safeguards training to initiate, operate and maintain the safeguards and material control system to meet the IAEA safeguards requirements.

About 200 participants from 32 countries between 1996-2009.



C. International Cooperation for SG Tech. Development

- **JASPAS (Japan Support Program for the Agency)**
1981-- State Level Support Program for IAEA SG Technology
SG System/Approach, Measurement Technique, C/S,
Training, Cost Free Expert
Approx. 60% of 92 tasks (97 tasks incl. sub tasks) were done
by JAEA and its predecessors (As for 2008)
- **JAEA/DOE SG Cooperation Agreement**
(← PNC/JNC/JAERI-DOE Coop. Agreement)
1988-- Cooperation for SG technology development between
JNC/DOE
Total 96 programs (107 items) (As of June, 2009)
- **Cooperation with EU**
1990-- Cooperation with JAERI
2006-- Amendment and expansion of cooperation area

D. JAEA's Possible Contribution to APSN

◆ Potential Coordination & Collaboration

The “Integrated Comprehensive Support Center for Nuclear Non-Proliferation and Nuclear Security for Asia (tentatively named)” could coordinate and collaborate with APSN in facilitating safeguards information sharing And promoting regional cooperation in appropriate safeguards applications and practices.



Japan's National Statement at the Washington Nuclear Security Summit

(Excerpts)

Ministry of Foreign Affairs of Japan,

http://www.mofa.go.jp/policy/un/disarmament/arms/nuclear_security/2010/national_statement.html

“Japan will this year establish a regional center for the strengthening of nuclear security, tentatively named **the "Integrated Comprehensive Support Center for Nuclear Non-Proliferation and Nuclear Security for Asia" under the Japan Atomic Energy Agency (JAEA)**, with the aim of institutionalizing support for nuclear security on a permanent basis and contributing to strengthened nuclear security in Asia and other regions in line with opinions expressed at the aforementioned seminar in January.”

D. JAEA's Possible Contribution to APSN

◆ Possibly Offer a Tool for Information Sharing & Nuclear Transparency

□ Web Portal for Information Sharing:

JAEA has established a web portal in cooperation the U.S. Sandia National Laboratories to facilitate communication exchanges as nuclear transparency measures. This web portal could have the potential to serve as a safeguards information sharing tool for APSN.

□ Remote Monitoring as Transparency Measures:

JAEA is currently developing a trilateral remote monitoring scheme with the U.S. Sandia National Laboratories & ROK/KINAC as transparency measures. The concept of this scheme could be utilized as a confidence-building measures for peaceful nature of APSN members' nuclear activities.

◆ Possible Organizer for Seminars & Provider of Safeguards Experts

JAEA could host seminars or workshops as a part of APSN activities. JAEA could also provide lecturers for safeguards trainings, seminars, or other events for knowledge-sharing of safeguards implementation.

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Thank You for Your Attention!

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