



“MEETING SAFEGUARDS CHALLENGES IN AN EXPANDING NUCLEAR WORLD”

**6 – 9 October 2008, International House of Japan
Roppongi, Tokyo, Japan**

Organized by:

**INMM International Safeguards Division
European Safeguards R&D Association
INMM Japan Chapter**

In cooperation with:

**INMM Nonproliferation and Arms Control Division
INMM Korea Chapter**

PRELIMINARY PROGRAM

Welcome Reception - 6:00 p.m. Sunday evening, October 5

Grand Palace Hotel, Matu Room, 3rd Floor

Opening Plenary Session - Monday morning, October 6

Chair: Gotthard Stein, INMM ISD; Germany

Welcome Addresses

INMM President, Steve Ortiz

ESARDA President, Goeran Dahlin

Japan INMM Chapter President, Yoshinori Meguro

Keynote Addresses

***Mr. Nobuhiro Muroya, Director, Safeguards Office, Science and
Technology Bureau, Ministry of Education, Culture, Sports and
Technology (MEXT), Japan***

***Mr. Hun-gyu Lee, President, INMM Korea Chapter; President, KINAC,
Rep. of Korea***

Jacques Baute, International Atomic Energy Agency

Stamatios Tsalas, European Commission

Working Group Sessions - Mon. afternoon - Wed., October 6 - 8

(Sessions start at 9:00 a.m. and end at 5:00 p.m. The detailed schedule will be set by the Co-Chairs.)

WG 1 -- Safeguards Implementation and State Evaluation

Co-Chairs: Kaoru Naito, NMCC, Japan; Dieter Tillwick, NECSA, South Africa

Subtopic 1.1: Emergence of state-level safeguards

The discussion will address bringing in state-level approaches and integrated safeguards, with views of safeguards authorities, regulatory authorities and facility operators.

Presenters:

- Jim Casterton**, CNSC, Canada, "Implementing the State-level Approach: Challenges and Opportunities"
- Arnold Rezniczek, Bernd Richter, Gotthard Stein**, Germany, "State-Level Safeguards in the EU: Possible Ways to Attain Full Maturity"
- Annette Berriman, John Carlson, Russell Leslie and Geoff Shaw**, ASNO, Australia, "State Level Approaches: The Next Step"
- Ryszard Zarucki and Eckhard Haas**, IAEA "Design of an integrated safeguards approach for a State"
- Masahiro Kikuchi**, NMCC, Japan, "Integrated Safeguards approach for state-level with cooperative SSAC functions"
- Dieter Tillwick, Joseph Shayi** NECSA, South Africa, "South Africa's experience on transition to Integrated Safeguards"
- Stamatios Tsalas**, European Commission-Luxembourg, State Evaluation and Integrated Safeguards within a regional Safeguards System: the Euratom case
- Jim Tape**, USA "The State-Level Approach: Moving beyond Integrated Safeguards"

Subtopic 1.2: Directions for future safeguards implementation

The discussion will address safeguards in the Asia/Pacific region, Latin America and in Europe; the role of regional offices and regional systems; safeguarding large and sensitive facilities, and other safeguards perspectives.

Presenters:

- Dunbar Lockwood**, NNSA, DOE, USA, "Next Generation Safeguards Initiative"
- Kaoru Naito**, NMCC, Japan, "Japan's experience of offering capacity building courses in Asia/Pacific region in view of increased regional cooperation"
- Wan Ki Yoon**, KINAC, ROK, "Partnered cooperation in integrated safeguards"
- Masato Hori**, JAEA, Japan, "Standardization of advanced safeguards approach"
- Tero Varjoranta**, STUK, Finland, "Developing safeguards and expanding nuclear above and below the ground level in Finland"
- Patrice Richir**, EC-JRC, "Current and future developments for improved safeguards in sensitive nuclear facilities"
- Orpet Peixoto**, ABACC, "Regional Safeguards Systems: past contributions and perspectives for future safeguards implementation"
- Sonia Fernandez Moreno**, ARN, Argentina

WG 2 -- Technical progress: The safeguards toolbox

Co-Chairs: Michel Richard, CEA, France; Keith Tolk, Sandia, USA

Subtopic 2.1: Safeguards technology and equipment to support state-level safeguards and a growing nuclear world

The discussion will address turning data into knowledge and action; the experience, development and future prospects of information sources, unattended and remote monitoring experience and prospects; safeguards technologies for sensitive facilities, challenges in future safeguards equipment, and what will be needed for the new generation of reactors and fuel cycle facilities.

Presenters:

Jacques Baute, IAEA, "Ongoing improvement and way forward for information management and analysis"

Masahiro Kikuchi, NMCC, Japan, "Information regarding sensitive equipment/technologies with advanced use of Additional Protocol functions"

Kazunori Fujimaki, Tomonori IWAMOTO, Shigeru UEHARA, JNFL, Japan, "Safeguards Implementation at Rokkasho Reprocessing Plant"

Won Il Ko, KAERI, ROK, "Safeguards challenges in dry-processed facilities"

Keith Tolk, Sandia, USA, "Addressing Data Security Issues in Safeguards Systems"

Mark Pickrell, IAEA, "The IAEA Engineering Approach to Large Plant Unattended Monitoring Systems"

Peter Chare, EC-Luxembourg, "Intelligent use of transmitted data"

Martyn Swinhoe, LANL, USA, "Non-destructive Assay for Plutonium bulk handling facilities"

Young Ham, LLNL, USA, "The Spent Fuel Verification Challenge for the Future: Partial Defect Testing"

Vitor Sequeira, EC-JRC, "Emerging technologies and their application in Containment and Surveillance"

Marius Stein, Steve Kadner, Canberra, USA, "Safeguarding Future Nuclear Fuel Cycles – Instrumentation Support"

Oswaldo Calzetta Larrieu, Orpet Peixoto, Erwin Galdoz, ABACC, "A comparative study between the IAEA Policy Paper 20 and the IAEA-ABACC Joint Use Equipment agreement"

Subtopic 2.2: Tools for detecting undeclared nuclear material and activities

The discussion will address the experience, development, and future prospects for satellite imagery; nuclear forensics, and other issues in the detection of undeclared activities.

Presenters:

Michel Richard, CEA, France, "Environmental monitoring: Ongoing developments to improve safeguards efficiency in an expanding nuclear world"

Yu Hashimoto, Mitsutoshi Suzuki, JAEA, Japan, "The Development and Future Prospects for Satellite Imagery"

Bob Truong, CNSC/CSSP, Canada, "Capabilities and Potential Safeguards Applications of High-Resolution Satellite Imagery"

Imgard Niemeyer, Prashanth Reddy Marpu, Christian Daneke, Freiberg University of Mining and Technology, Germany, "Automated Information

Extraction and Information Management using Satellite Imagery Analysis and Geodatabase Systems”

Maria Wallenius, Klaus Mayer, Magnus Hedberg, EC-JRC/ITU, Germany
“Nuclear forensic science - Atomic detectives completing the safeguards toolbox”

WG 3 -- Safeguards and Nonproliferation Policy and Institutional Issues

Co-Chairs: Ron Cherry, USDOE, USA; Larry Satkowiak, ORNL, USA

Subtopic 3.1: The nonproliferation – safeguards interface: crosscutting issues

The discussion will address how questions about compliance with States’ obligations can be addressed and resolved; special cases; issues concerning non-State; safeguards – export control interfaces; supply assurances; multinational and multilateral activities (MNA), and NPT issues (non-proliferation, disarmament).

Presenters:

Laura Rockwood, IAEA

George Anzelon, LLNL, USA, “IAEA Investigation of Undeclared Activities: Lessons and Prospects”

Ryszard Zarucki and **Matti Tarvainen**, IAEA, “Dealing with modern proliferation issues and risks”

Rajiv Nayan, *The Institute for Defence Studies and Analyses India*, “The Indian global nuclear quest and the new India-specific safeguards system”

Nobumasa Akiyama, *Hitosubashi Univ., Japan*, “Minimizing proliferation risks in Asian 'nuclear renaissance'”

Seong Youn Jo, KINAC, ROK, “The role of the national control regime in supply assurance frameworks”

Tatsujiro Suzuki and **Tadahiro Katsuta**, *U. of Tokyo, Japan*, “Multilateral Nuclear Fuel Cycle Approaches in Northeast Asia: Lessons from the past and Impact of Advanced Fuel Cycle”

Yosuke Naoi, JAEA, Japan “Recent Development of Assurance of Supply of Nuclear Fuel”

Lorilee Brownell, DOE/NNSA, **Patricia O’Brien**, DOE/NNSA, **Troy Wright**, PNNL, USA “Sustaining Material Protection, Control and Accounting through an effective regulatory structure”

Kara de Castro, *Gregg Protection Services, USA*, “Nuclear Security Culture and the Insider”

George Baldwin, Sandia, USA

Subtopic 3.2: Broader considerations on the non-proliferation regime

The discussion will address nuclear transportation issues; safeguards and nuclear security integration; developments in nuclear security, and proliferation considerations in future nuclear systems.

Presenters:

Ken Sorenson, Sandia, USA; **Adelaide Giantelli**, U.S. Nuclear Regulatory Commission, "Secure Transport of Commercial Advanced Fuel Cycle Materials in the U.S. under an Evolving Regulatory Framework"

Takifumi Kitamura, JAEA, Japan

Caroline Jorant, AREVA, France

Mona Dreicer, LLNL, USA, "Integration of nuclear safeguards infrastructure development with UNSCR 1540 implementation"

M. Gregoric, Office of Nuclear Security, IAEA, "Risk assessment and State management of nuclear security measures"

Roger Howsley, NTI, UK, "WINS", "The World Institute for Nuclear Security (WINS) – Where Good Practices Meet Great Ideas"

Eckhard Haas, IAEA, "Safeguardability and Proliferation Resistance"

Joe Pilat, LANL, USA, "Reassessing proliferation resistance"

WG 4 – Safeguards and Nonproliferation Academic and Training Programs

Co-Chairs: Mark Leek, U. of Washington, USA; Willem Janssens, EC-JRC

This working group will feature interaction between educators that will include presentations and discussion on topics such as the emphasis on non-proliferation (including export control), the lessons learned from the first programs, the applied – policy dichotomy, and nonproliferation and safeguards training issues.

Subtopic 4.1: Technical Programs (University or Country-Specific)

Presenters:

William Charlton, Texas A&M University, U.S., "Nuclear Nonproliferation and International Security Master of Science Degree at TAMU"

Yusuke Kuno, Deputy Dir NPSTC, JAEA/Prof., U. of Tokyo, Japan, "Nuclear education and research initiative for non-proliferation policy and safeguards technologies" (U. of Tokyo Global COE Program)

Gennady Pshakin, Professor and Scientist, IPPE, Russia, "Safeguards Education and Training in the Russian Federation from a Systems Perspective"

Maribeth Hunt, Department of Safeguards, IAEA, "Training on IAEA Complementary Access"

Subtopic 4.2: Policy Programs (University or Country-Specific)

Presenters:

Elena Sokova, Monterey Institute of International Studies (MIIS), USA

Sarah Frazar, PNL, USA, "DOE nonproliferation training and education"

Kun-jai Lee, Advanced Institute of Science and Technology, Republic of Korea, "Challenging issue and prospect for the safeguards and NPT in the field of academic side in the ROK"

Anupam Srivastava, University of Georgia, USA, "Incorporating Technology Safeguards into Export Control Curriculum at CITS"

Subtopic 4.3: International and regional programs

Presenters:

M. Gregoric, Office of Nuclear Security, IAEA, "Educational Programme in Nuclear Security"

Willem Janssens, European Commission – Joint Research Centre, "European Education and Training for nuclear safeguards"

Yoshihiro Nakagome, Professor Emeritus, Kyoto University, "On the Nuclear Non-proliferation Lecture for Graduate Students"

Dunbar Lockwood, DOE, USA, "Connecting the Classroom to the Field: The important role of Internships in Safeguards Education"

Workshop Reception - 17:30 p.m. Tuesday evening, October 7
International House of Japan

Closing Plenary Session - 9:00 a.m. Thursday morning, October 9

Chair: James Larrimore, INMM ISD; USA

In the Closing Plenary, the Chairs of the Working Groups will present their reports on the presentations and discussions in their working group, followed by general discussion of the workshop results.

Presenters:

Working Group 1

Co-Chairs **Kaoru Naito, Japan; Dieter Tillwick, South Africa**

Working Group 2

Co-Chairs **Michel Richard, France, Keith Tolk, USA**

Working Group 3

Co-Chairs **Ron Cherry, USA; Larry Satkowiak, USA**

Working Group 4

Co-Chairs **Mark Leek, USA; Willem Janssens, EC**

Closing of the 2008 INMM/ESARDA Workshop (Noon).