Seventh INMM/ESARDA Workshop
WORKING GROUP 1:
Future Directions for International Safeguards
Co-Chairs: J. Casterton & P. Meylemans

Report to the Plenary
20 Oct. 2011
The Evolution of the State-Level Concept

• A holistic approach to safeguards implementation:
  – Applicable to all States with SG agreements;
  – Based on a comprehensive and continuous State evaluation and a State-level approach, including a specific combination of safeguards measures for an individual State; and
  – Executed through an annual implementation plan.

• Considering the State as a whole provides the opportunity to take State-specific factors into consideration during all stages of safeguards implementation.

• Implementation of the State-level concept is responsive to changes in the analysis, ensuring that safeguards conclusions remain soundly based and up-to-date.
Processes for Safeguards Implementation that is Objectives-Based and Information-Driven

- Identify State-specific factors
- Analyze acquisition paths
- Establish and prioritize State-specific objectives
- Develop State-level Approach
- Plan safeguards activities
- Implement safeguards activities in the field and at HQ
- Collect, process and analyze all information
- Evaluate information
- Establish and use knowledge of State
- Determine State-level Safeguards approaches
- Safeguards conclusions
- AIP

Follow-up Actions?
Evolving the State-Level Concept (SLC)

• Strong support for the SLC and recognition of its benefits.

• Discussion on factors that should be taken into account as SLC is further developed:
  – Need for good understanding, transparency and clarity;
  – Need for good communication with all stakeholders; and
  – Strong need for MS support, including good cooperation with SSAC and RSAC.
Prospects for RSACs/SSACs

• In evolving the SLC, consideration of the role of RSACs/SSACs is fundamental:
  – Important to recognise capabilities and make best use of them;
  – Examine possibilities of working in a complementary way?
    • Declared activities vs undeclared?
  – How will State-specific factors/focus be applied to regional systems
  – Stress positive and proactive measures
SLC Tools: Acquisition Path Analysis

• Analysis of all plausible schemes for a State to acquire nuclear material usable for the manufacture of a nuclear explosive device.
• High priority pathways to be identified, but low priority ones should not be neglected.
• Hypothesis testing & ‘Degree of Belief’
• If ranking pathways technically, also consider behaviour of the State
Perspectives of States and Operators

- Consultation between operators, national authorities and IAEA to get understanding and buy-in and to explore proposals for optimisation.
- In developing SLA, focus should not only be on facilities and material, but also take into account socio-economic factors in the State.
- Cooperation is a two-way street.
- Need to recognise the added value of the ‘regional non-proliferation architecture’.
Fuel Cycle Aspects

• Challenges associated with new or specific facilities.
• Conventional and unconventional resources for U extraction and importance of export control.
• Active development of new safeguards measures for conversion and enrichment facilities.
• Pu facilities (reprocessing and MOX fabrication) – robust tools for process monitoring, optimisation through data transmission.
Safeguards By Design/Proliferation Resistance

• Efforts undertaken for SBD in development of next generation nuclear plant project and the new uranium processing facility project in the US.
• Stressed linkage between safety, security and safeguards requirements and the regular and early involvement of all stakeholders in the design process.
• The integration of different methods for the assessment of the proliferation resistance of nuclear facilities may result in a more effective single methodology.
Summary

• The IAEA has to address new challenges.
• The evolution of the State-Level Concept will enable the IAEA to better address those challenges.
• There is broad support for this initiative.
• However, the discussion highlighted the fact that are a number of issues that need to be addressed in the evolution of the SLC.
Summary

• The active support by all stakeholders is required.
• Transparency is essential and necessary for buy-in.
• There is a need for a high level of cooperation, to explore mutual benefits and to make use of existing capabilities of SSACs and RSACs.
• Assistance by member States in the development of safeguards approaches, tools and technologies can contribute to this process of change.
Summary

THANK YOU