

Verifying Multilateral Nuclear Reductions: Balancing Verification, Transparency and Information Security

September 9, 2011

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Outline

- Verification Challenges for Multilateral Nuclear Disarmament and the Importance of Transparency
- The International Atomic Energy Agency (IAEA)
 - Legal Tools
 - Practical Tools
 - Limitations
- The Organization for the Prohibition of Chemical Weapons (OPCW)
 - Legal Tools
 - Practical Tools
 - Limitations
- Conclusion

Importance of Transparency and Information Security

Verification Challenges for Multilateral Disarmament

- Stockpile Declarations
- Warhead Authentication*
- Disposition of Fissile Material*

IAEA

- Legal Tools
 - Statute [Article 7, Paragraph F]
 - INFCIRC/66 [Part 1, Section B, Paragraphs 13 and 14]
 - INFCIRC/153 (Comprehensive Safeguards Agreement (CSA)) [Part I, Paragraphs 5, 7 and 9]
 - INFCIRC/540 (Model Additional Protocol (AP)) [Articles 7, 14, Paragraph B, and 15]
 - Employee Contracts

IAEA

- Safeguards
 - Containment and Surveillance (C&S)
 - Nuclear Material Accountancy (NMA)
 - Destructive Assay (DA)
 - Non-destructive Assay (NDA)
 - On-site Inspections (OSI)
 - Visits (design information)
 - Routine Inspections (nuclear facilities, locations containing nuclear material or strategic points)
 - Ad Hoc Inspections (nuclear material reports or international transfers)
 - Special Inspections
- Practical Tools
 - Compartmentalization
 - Consent for use and placement of C&S
 - Facility agreements/managed access procedures
 - On-site storage of information (use of C&S for sensitive documents i.e. design information)

IAEA

- Limitations
 - Lack of truly sensitive information
 - Trilateral Initiative
 - Who: IAEA, Russian Federation, and U.S.
 - What: Safeguards for Classified Material
 - Developed Information Barriers

- ** Would be interesting to explore and procedural changes used in South Africa**

OPCW

- Legal Tools
 - Convention [Articles 6.10, 7.6, 7.46-47, 8.5, 9.9, 9.11.C, 11.19]
 - Verification Annex
 - Appointment of inspectors (not HQ analysts), approval of equipment, procedures for managed access, etc.
 - Annex on the Protection of Confidential Information
 - Principles for handling confidential information, conduct of personnel, procedures for OSI, procedures for confidentiality breaches

OPCW

- Practical Tools
 - Destruction
 - Permanent inspector presence
 - Approval for containment & Surveillance , facility agreements etc
 - Nonproliferation
 - OSI (routine and challenge inspections)
 - Facility agreements/managed access procedures
 - Detection Equipment Using Information Barriers
 - » Gas Chromatograph/Mass Spectrometer (GC-MS) with Automated Mass Spectral Deconvolution and Identification System (AMDIS)

OPCW

- Limitations
 - Technology
 - Military value/destructive power
 - Political value
 - Historical context
- ***Transition from verification of destruction to nonproliferation

Conclusion

- While the protection of proprietary business information is extremely sensitive the CWC model is limited.
- However, the experience of the OPCW does illustrate the extreme importance of striking a balance between intrusive verification, confidentiality and transparency.
- The legal and practical tools developed by the IAEA to protect confidential information during verification have been largely successful
- The IAEA is ideally structured, practiced and positioned to aid in verifying multilateral nuclear reductions, particularly the disposition of fissile material
- Would be interesting to look at the procedures developed by the Agency to verify South Africa's nuclear disarmament