



Accountability
Performance
Accuracy

The Nuclear Materials Management Safeguards System

NMMSS

2016

Annual Users Training Meeting

May 9-12, 2016 | New Orleans, LA

Modified Small Quantities Protocol Reporting and Rulemaking

Hilary Lane

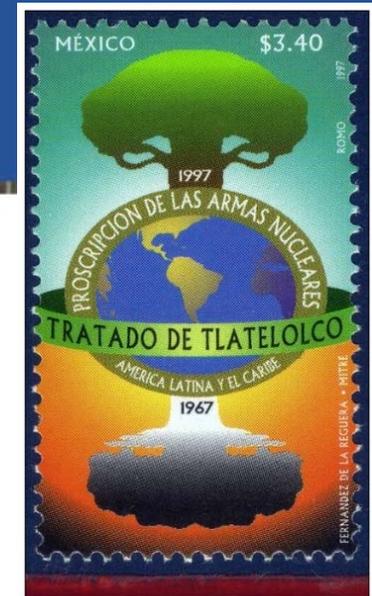
Nuclear Regulatory Commission



- Since 2005, the IAEA has had a new reporting and inspection regime (the modified Small Quantities Protocol/SQP) for countries with limited nuclear infrastructure (no “facilities”) and limited quantities of nuclear material (to include source and special nuclear material, also extending to nuclear materials in non-nuclear end uses e.g., depleted uranium in shielding)
- There are approximately 25 NRC entities (which includes both specific and general licensees) that will be required to report to NMMSS and facilitate IAEA inspections (*in Puerto Rico and USVI*) under this new regime
- The NRC rulemaking will not impact NRC or Agreement State licensees who are located within one of the 50 states

"Treaty of Tlatelolco"

(Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean)



Almospice www.delcampe.net

- Entered into force: 1969
- First nuclear weapons free zone treaty established for a populated area
- Protocol II – Nuclear Weapon States (NWS) undertake not to use or threaten to use nuclear weapons against contracting parties
 - Ratified by U.S.: 1971
- Protocol I – requires removal of all nuclear weapons and added safeguards measures in the territories for which states outside the region are internationally responsible
 - Ratified by U.S.: 1981
 - Requires contracting parties to sign a safeguards agreement with the IAEA



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INFCIRC/366 - "US/IAEA Caribbean Territories Safeguards Agreement" *(Agreement Between the U.S.A. and the IAEA for the Application of Safeguards in Connection with the Treaty for the Prohibition of Nuclear Weapons in Latin America)*



U.S. "Protocol I" Territories:

- **Puerto Rico**
- **U.S. Virgin Islands**
 - **St. Croix**
 - **St. Thomas**
 - **St. John**
- Navassa Island
- Serranilla Bank
- Baja Nuevo (Petral Island)
- Guantanamo Bay Naval Base



INFCIRC/366 and The Small Quantities Protocol (SQP)

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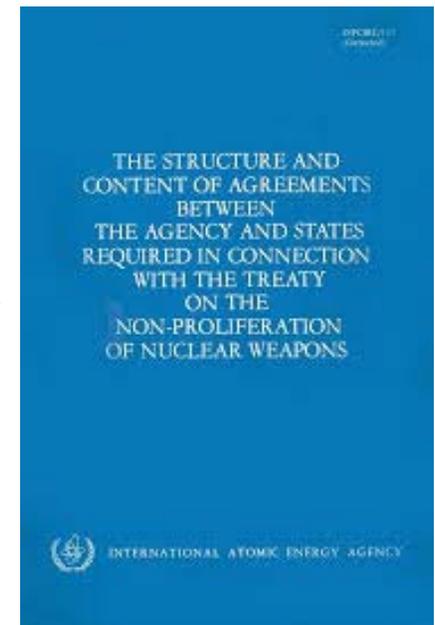
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- Negotiated pursuant to Protocol I of the Treaty of Tlatelolco
- Both entered into force: 1989
- Based on the IAEA's model comprehensive safeguards agreement (INFCIRC/153) required by the NPT for all non-nuclear weapon states (NNWS)
- Does *not* contain a national security exclusion (NSE)
- All holders of nuclear material are subject to the Agreement
- The SQP (concurrently signed w/ 366):
 - Alleviates the burden of safeguards on countries with limited nuclear infrastructure (limited quantities of uranium, thorium and plutonium, no “facilities”)
 - All but 5 articles of INFCIRC/366, Part II (Procedures), held in abeyance

**IAEA**

International Atomic Energy Agency



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Modified SQP Requirements (GOV/INF/276/Rev.1)

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2005: Limitations of SQPs were recognized. The SQP was modified to strengthen the safeguards system. The IAEA Board of Governors (BOG) has requested that all States modify existing SQPs and will only accept modified SQPs to future agreements.



As of Feb. 2016,
55% of SQP
states have
modified their
SQP



- The USG intends to adopt the IAEA's *model text* of the modified SQP
- The USG is a primary driver for strengthening IAEA safeguards



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Comparison of Old and New Requirements to the IAEA

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Original SQP Requirements	Modified SQP Requirements
Annual reports on imports and exports and advance notification on those imports and exports	CONTINUES Form 741, Form 740M
Establish and maintain a State System of Accounting and Control (SSAC)	CONTINUES
Conclude Subsidiary Arrangements	CONTINUES
	Must submit initial inventory report Form 742C
	Provide up-to-date information on nuclear material held outside facilities Form 740M
Provide design information at least 180 days before nuclear material is introduced into the facility (*SQP becomes non-operational if/when a facility is <u>built</u>)	Provide early notification to the IAEA when a decision to construct a facility is made (or when nuclear material quantities are expected to exceed SQP limits, as defined) (*SQP becomes non-operational if/when a facility is <u>approved</u> or when SQP limits are exceeded)
	Facilitate ad hoc and special inspections (when requested by the IAEA)



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Inventory and Exemptions

- Most nuclear material in the territories is likely to be used for medical, academic, industrial, and research applications
- No current licenses authorize possession or use of special nuclear material (SNM)



- Exemptions can be requested by the USG after the nuclear material is declared in the initial report to the IAEA



- 10 CFR Pt. 40 (Domestic Licensing of Source Material)
- 10 CFR Pt. 70 (Domestic Licensing of Special Nuclear Material)
- 10 CFR Pt. 75 (Safeguards on Nuclear Material – Implementation of US/IAEA Agreement)

- Final rule (no public comment, no proposed rule)
- Rule priority: HIGH

External Stakeholders:

- IAEA
- Puerto Rico Department of Health
- Department of State
- Department of Energy
- Department of Defense
- National Security Council
- Office of Management and Budget

NRC Rulemaking Working Group:

- **Office of Nuclear Material Safety and Safeguards (NMSS)**
- Region I (King of Prussia, PA)
- Office of General Council (OGC)
- Office of Administration (ADM)
- Office of International Programs (OIP)
- Office of the Chief Information Officer (OCIO)

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Material Balance Area (MBA) Structure

1 MBA



RIS Code AAA



RIS Code CCC



RIS Code BBB



- Through outreach and coordination with Region I: determine identity of holders of source material (depleted uranium, natural uranium, and thorium), introduce new requirements to licensees
- Rulemaking WG (** Estimated Dates, subject to delay*)
 - Draft 10 CFR language changes (Part 40, 70, 75) (ongoing)
 - OMB approval process for existing forms (ongoing)
 - Assemble final rule package for Commission signature (est. November 2016)
 - Published in *Federal Register Notice* (January 2017)
 - Licensees and entities submit initial declarations to the NRC through NMMSS (February 2017)

Next Steps – Contd.

- Future Policy Actions:



- The Department of State formally negotiates the terms and conditions of implementing the modified SQP, with technical assistance from the NRC
- The Department of State will formally bring the modified SQP “into force” by way of diplomatic letter to the IAEA (est. March 2017)

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QUESTIONS?

