



Implementation of IAEA Safeguards at NRC Licensed Facilities

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U.S. Commitments to IAEA Safeguards

- President Johnson, Voluntary Offer - 1967
- Non-Proliferation Treaty - 1970
- U.S./IAEA Safeguards Agreement and Initial Protocol - 1980
- Subsidiary Arrangements - 1980
- Additional Protocol signed - 1998
- Additional Protocol ratification - 2009

US-IAEA Safeguards Agreement (Voluntary Offer Agreement)

- All U.S. facilities not of direct national security significance to be placed on list of U.S. facilities eligible for IAEA inspections
- 19 U.S. facilities have been selected from the Eligible Facilities List, since inception

Eligible Facilities List

- List of facilities eligible for IAEA safeguards inspection or selection for material accounting reporting
 - Approximately 230 NRC-licensed facilities on list
- NRC typically nominates proposed facility upon receipt of license application
- Federal agency review to ensure information of direct national security significance would not be released during safeguards implementation
- Federal agency approved list submitted to Congress for 60-day review before transmittal to IAEA

Placing a Facility and Nuclear Materials Under IAEA Safeguards

- IAEA selects the facility from the U.S. Eligible Facilities List
- NRC notifies licensee of selection
- Licensee (with assistance from NRC) prepares a Design Information Questionnaire (DIQ)
- U.S. submits the DIQ to the IAEA
- IAEA conducts design information verification (DIV) inspections of declared facility

Placing a Facility and Nuclear Materials Under IAEA Safeguards

- IAEA develops the safeguards approach
(Inspection frequency, design information verification, records and reports, nuclear material verification measures and containment/surveillance measures)
- U.S. and IAEA negotiate a facility attachment
(details how IAEA Safeguards will be implemented)
- U.S. provides a declaration of its initial nuclear material inventory
- IAEA completes an initial nuclear material inventory verification

US-IAEA Additional Protocol

- Expands U.S. declaration requirements and IAEA access to nuclear-related activities
- Includes all NRC and Agreement State licensees with reportable activities
- Requires reporting of and access to all aspects of the nuclear fuel-cycle, such as:
 - Mining / ore processing
 - Nuclear-related equipment manufacturing
 - Nuclear-related imports and exports of equipment and materials
 - Research and development not involving nuclear material

NRC's U.S. Additional Protocol

- Executive Order Directing Implementation – February 4, 2008
- Regulations (10 CFR Parts 75 and 110) – December 24, 2008
- Ratification and Entry into Force – January 6, 2009
- Information Collection Complete – March 18, 2009
- Assessment/Vetting - March 31, 2009
- Formal Certification to the White House – April 17, 2009
- Submission of U.S. Initial AP Declaration – July 5, 2009

Reported Activities under the AP

- Article 2.a(i) – Fuel-cycle Research and Development
 - NRC - 4 Entries
 - Total U.S. - 128 Entries
- Article 2.a (iii) - Buildings at Nuclear Facilities
 - NRC - 8 “Sites”, 118 Buildings
 - Total U.S. - 11 “Sites”, 121 Buildings
- Article 2.a (iv) - Fuel-cycle related manufacturing
 - NRC - 3 Entries
 - Total U.S. - 19 Entries

Reported Activities under the AP

- Article 2.a(v) – Mining and concentration plants
 - NRC - 11 Locations
Total U.S. - 35 Locations
- Article 2.a (vi) - Import, export, or possession of source materials preceding starting point of IAEA safeguards
 - NRC - 1 Location
Total U.S. - 1 Location
- Article 2.a (ix) - Export of nuclear fuel cycle-related equipment and non-nuclear material
 - NRC – 47 entries for 1st quarter 2009
Total US – 47 entries for 1st quarter 2009

NRC Objectives Related to IAEA Safeguards

- Support the U.S. nonproliferation efforts
- Provide IAEA inspectors access and information to verify U.S. compliance with international obligations
- Minimize impacts on site personnel and functions
- Maintain compliance with regulatory requirements
- Maintain compliance with site security requirement