



U.S. NRC's Preparations for Implementing the Additional Protocol

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Additional Protocol Objective

- IAEA:
 - To verify the correctness and completeness of the information provided by the State
 - To detect undeclared nuclear material and activities in non-nuclear weapons states
- U.S.:
 - To promote U.S. nonproliferation goals
 - Demonstrate that the Additional Protocol does not place non-nuclear weapon states at a commercial disadvantage

Background

- The Additional Protocol will make it more difficult for a country to hide undeclared activities
 - Requires increased information reporting,
 - Authorizes wider use of environmental sampling,
 - Expands access to nuclear fuel cycle facilities, activities, and related locations
- The U.S. pledge to accept the Model Additional Protocol in its entirety (with only the addition of a National Security Exclusion) was critical in negotiating strong measures
- Implementation by U.S. will strengthen U.S. ability to press other States to implement
 - 125 approved by the BOG, 87 in force (as of April 25, 2008)

Reportable Activities

- Certain nuclear fuel cycle-related R&D
- Activities on sites of certain nuclear facilities
- Certain nuclear fuel cycle-related manufacturing
- In-situ leach and ore processing
- Import, export, or possession of nuclear materials
- Export of certain nuclear fuel cycle-related equipment, heavy water, and graphite

Research and Development (R&D)

Article 2.a(i)

- R&D not involving use of nuclear material
 - Funded, specifically authorized or controlled by, or carried out on behalf of U.S. Government
 - Includes all activities specifically licensed by NRC
- Mostly DOE-funded research at universities
 - NERI (Nuclear Energy Research Initiative)
 - INERI (International Nuclear Energy Research Initiative)
 - AFCI (Advanced Fuel Cycle Initiative)
 - NEER (Nuclear Engineering Education Research)

Sites of Nuclear Facilities (Currently or previously selected by IAEA)

Article 2.a(iii)

- Site of Facility for which Design Information Questionnaire was submitted to IAEA
- Site of Facility on current Eligible Facilities List
- Currently affected licensees

Areva-NP

Global Nuclear Fuels

Areva-NP

Westinghouse

BWXT Downblending Facility

Salem-1

Turkey Point-4

San Onofre-2

Arkansas-2

Manufacturing Activities

Article 2.a(iv)

- Manufacturing, assembly, or construction that was active during reporting year
 - Enrichment plant equipment
 - Reactor control rods
 - Hot cell construction
 - Irradiated fuels casks
 - Reprocessing plant equipment
 - Zirconium Tubes
 - Heavy water/Deuterium
 - Nuclear grade graphite

Uranium and Thorium Mines and Ore Processing Plants

Article 2.a(v)

- Mines, mills, and by-product recovery from other ore processing activities
- Recovery plants
- Operating and closed locations

Impure Source Material

Article 2.a(vi)

- Possession of source material preceding the starting point of IAEA safeguards
 - Uranium ore concentrates
 - By-product from other ore processing
- Import and export of impure source material for non-nuclear end uses

Exports of Equipment and Material

Article 2.a(ix)

- Equipment and non-nuclear materials licensed by NRC for export
- NRC collects information to be reported in export license applications
- IAEA may request to verify information on imports of covered equipment and material
- Importing locations expected to be licensees

Anticipated Licensees Affected

- < 50 Research and development activities
- < 10 Sites of nuclear facilities
- < 15 Equipment manufacturing activities
- < 20 Mines, mills, and concentration plants
- < 10 Pre-safeguards source material facilities
- < 20 Equipment exporters and importers

U.S. Additional Protocol Status

- Treaty signed by U.S. and IAEA - June 1998
- Senate Consent to Ratification - March 2004
- Implementing Legislation - December 2006
- ***Executive Order – February 2008***
- NRC Regulations (10 CFR Parts 75 and 110) – Ongoing
- DOC Regulations (15 CFR Parts 781 - 799) - Ongoing
- Information Collections and Assessments - Ongoing
- Ratification and Entry into Force - TBD
- U.S. Declarations – 180 days after entry into force

Implementation Responsibilities

Implementation of the Additional Protocol at U.S. commercial locations is shared among the U.S. interagency community:

- The Department of Defense (DOD) is responsible for activities that take place on DOD owned, operated or leased locations;
- The Department of Energy (DOE) is responsible for activities that take place on DOE owned, operated or leased locations;
- The Nuclear Regulatory Commission (NRC) is responsible for activities that take place at NRC and Agreement State licensed locations, except at DOE and DOD locations;
- The Department of Commerce (DOC) is responsible for activities that take place at locations not covered by DOD, DOE or NRC.

NRC's Responsibilities

- **Oversee Additional Protocol reporting from NRC and Agreement State licensees**
- **NRC will review data submitted by licensees for inclusion in the U.S. declaration to the IAEA**
- **Facilitate complementary access to licensee locations**

NRC Rulemaking

- Broadens scope of NRC regulations, specifically 10 CFR Parts 75 and 110
 - Includes all NRC and Agreement State licensees versus only licensed facilities
 - Incorporates Additional Protocol requirements into existing Parts 75 and 110
 - Reporting requirements
 - IAEA access

NRC Rulemaking Status

- Finishing touches in May and June
- Direct final rule
(Implementing only changes necessary to meet the Additional Protocol requirements)
- Publication coordinated with DOC and DOE
(October 2008)

Guidance Under Development

- Guidance for licensees
 - Joint NRC/DOC Additional Protocol Report Handbooks
 - Reporting guidance, instructions and forms
 - Joint NRC/DOC web site with applicable references and documents (under consideration)

Information Collection Process

- NRC and Department of Commerce (DOC) are developing a joint information collection process
- Licensees will use paper-based forms
- All NRC related reporting forms will be routed through the DOC Bureau of Industry and Security
- Future plans to develop and implement a computerized reporting system utilizing web-based forms

Information Collection Timeline

- Initial reports (scheduled for Nov. 2008)
 - submitted to DOC within 30 days of the publication of a final rule establishing the Additional Protocol reporting.
- Annual reports (1st due in 2010)
 - submitted to DOC by January 31st of the year following any year in which the nuclear fuel cycle-related activities took place or in which there were changes to previously reported activities.
- Export Reports (quarterly)
 - submitted within 15 days after the end of each quarter. (January 15th, April 15th, July 15th and October 15th)

Complementary Access Facilitation

- The United States expects the IAEA to seek access in the United States for the purpose of increasing the effectiveness or efficiency of IAEA safeguards at facilities in NNWS, or enhancing the capability of the IAEA to detect undeclared nuclear material and activities in NNWS.
- The United States foresees no circumstances in which the IAEA would need to request access on the basis of a question or inconsistency without first providing the United States with an opportunity to clarify and facilitate the resolution of the question or inconsistency.

NRC Outreach

- Previous years
 - Presentations to Nuclear Energy Institute
 - Various technical meetings (Annual INMM meeting, NMMSS User's meeting, etc.)
- 2008 Scheduled presentations
 - The Annual NMMSS Users Group meeting, May
 - The INMM 49th Annual Meeting, July
 - The Organization of Agreement States meeting, August
 - The Annual TRTR Conference, September
- Future
 - Meetings and communications after rule change published

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