

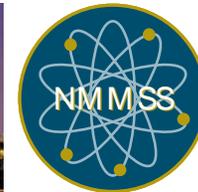
**NMMSS Users Annual Training Meeting
Atlanta, Georgia—May 22-24, 2007**

ADDITIONAL PROTOCOL TO THE U.S.- IAEA SAFEGUARDS AGREEMENT

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Additional Protocol Objective

- General: To detect undeclared nuclear material and activities in non-nuclear weapons states
- U.S.: To promote U.S. nonproliferation goals by demonstrating that the Additional Protocol does not place non-nuclear weapon states at a commercial disadvantage



Background

- Comprehensive safeguards agreements with IAEA began in 1970s
 - U.S. Voluntary Offer Agreement in 1980
- Access and reporting only on facilities with nuclear materials (accountancy verification)
- Undeclared nuclear weapons program in Iraq identified need for increased access and verification authority for IAEA



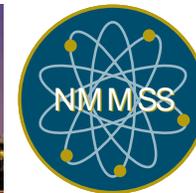
Background (cont)

- The Additional Protocol will make it more difficult for a country to hide undeclared activities
- The U.S. pledge to accept the Model Additional Protocol in its entirety was critical in negotiating strong measures
- Implementation by U.S. will strengthen U.S. ability to press other States to implement
 - Approximately 120 signed and 80 in force



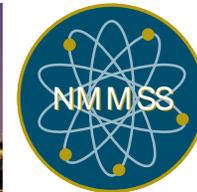
Additional Protocol Scope

- Additional and broader information on nuclear-related activities in United States
 - Declaration of activities without nuclear materials
- Additional and broader IAEA access to nuclear-related activities
 - Verification of scope of declared activities
- Facilitated administrative requirements
 - Enhanced designation of IAEA inspectors
 - Multiple entry visas for IAEA inspectors



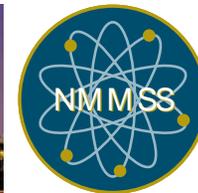
U.S. Declared Activities

- Certain nuclear fuel cycle-related R&D
- Activities on sites of certain nuclear facilities
- Certain nuclear fuel cycle-related manufacturing
- Mining, milling, and concentration plants
- Import, export, or possession of materials preceding starting point of IAEA safeguards
- Export of certain nuclear fuel cycle-related equipment, heavy water, and certain graphite
- Location of IAEA-exempted or terminated nuclear materials



Requirements

- Report information on certain nuclear fuel cycle-related activities
 - Annual reporting; quarterly for exports
- Provide IAEA with access to verify accuracy of declarations
- Exception
 - National Security Exclusion of all activities, locations, and information of direct national security significance to the United States



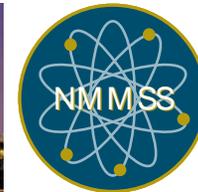
Additional Protocol Implementation

- Verification not mechanistic or systematic
 - Not based on size of country's nuclear program
- Resolve questions and inconsistencies
 - Inconsistencies in all information received from U.S.
 - Inconsistencies between U.S.'s declarations and all other information received by IAEA
 - IAEA inspector feeling that something is wrong
 - Openness and transparency of U.S. commercial activities



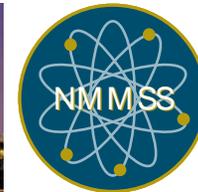
Protections

- National Security Exclusion
- Managed access to protect national security, proliferation sensitive and business sensitive information
- Managed access to ensure compliance with health, safety, and security requirements



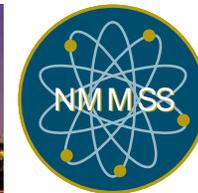
Additional Protocol Status

- Signed by United States in June 1998
- Approved by Senate on March 2004
- Implementing Legislation signed December 2006
- Executive Order
- Regulatory changes
- Implementation preparations
- Ratification by President
- Entry into Force
- Initial declaration on locations to IAEA within 180 days of entry into force



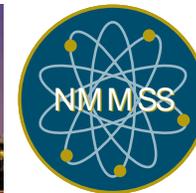
NRC's Responsibilities

- Overseeing Additional Protocol reporting from NRC and Agreement State licensees
 - ~4,000 NRC licensees
 - ~18,000 Agreement State licensees
- Facilitating IAEA complementary access to licensee locations



Affected Licensees

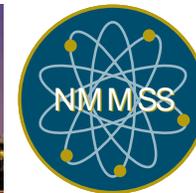
- <50 Performing research and development
- <10 Sites of nuclear facilities
- <10 Equipment manufacturing activities
- <20 Mines and mills
- <10 Using or storing impure source material
- <20 Equipment exports



Research and Development

Article 2.a(i)

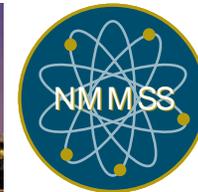
- Government-affected R&D
 - Funded, specifically authorized or controlled by, or carried out on behalf of U.S. Government
 - DOE-funded NERI, INERI, AFCI, NEER, and INIE research and NRC-funded safety research at universities
 - Includes NRC-licensed activities
- Most fuel cycle-related processes
 - Conversion, enrichment, fuel manufacture, reactors, etc
- Not involving direct use of nuclear material
- Activities related to process or systems development, does not include basic research



Research and Development (cont)

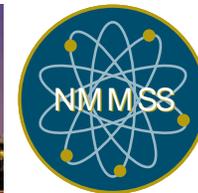
Article 2.b.(i)

- R&D for which U.S. Government has no official knowledge
- Enrichment and irradiated fuel/waste processing only
- Not involving direct use of nuclear material
- Activities related to process or systems development, does not include basic research



Sites of Nuclear Facilities

- Facility on current Eligible Facilities List
- Formerly or currently selected facility for which Design Information Questionnaire was submitted to IAEA
- BWXT Downblending, Areva NP (WA and VA), Global Nuclear Fuels-Americas (NC), Westinghouse (SC), Salem NPP, Turkey Point NPP, San Onofre NPP, Arkansas I NPP
- DOE's Hanford, Oak Ridge Y-12, and KAMS storage facilities



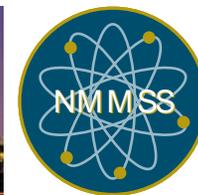
Manufacturing Activities

- Only active manufacturing, construction or assembly during reporting year
 - Enrichment technology major components
 - Zirconium tubing
 - Reactor control rods
 - Heavy water
 - Nuclear grade graphite
 - Casks for irradiated fuel
 - Hot cells
 - Irradiated fuel chopping machines
 - Criticality safe vessels



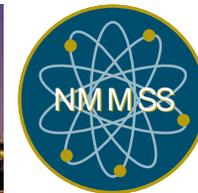
Uranium and Thorium Mining, Milling, and Concentration Plants

- All operating, stand-by, and closed locations
- Includes in-situ leach mines, mills, and by-product recovery from other ore processing activities
- Other uranium and thorium recovery plants



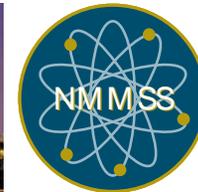
Impure Source Material

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



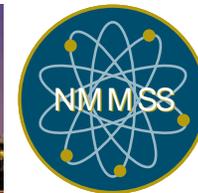
IAEA Exempted or Terminated Nuclear Material

- No IAEA-exempted or terminated nuclear material for the United States



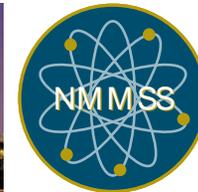
Exports of Equipment and Material

- Export-controlled equipment and non-nuclear materials licensed by NRC for export
- NRC currently collects most information required to be reported
- No additional reporting is expected
- IAEA may request to verify information on imports of covered equipment and material
- Most importing locations expected to be licensees



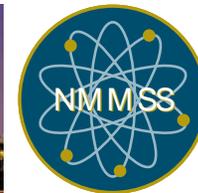
Information Collection

- NRC and Commerce developing joint report forms
- Common information placed on separate form to eliminate repetitive entries
- Forms designed to limit entry of free text
- Previously reported information will populate forms to minimize data entry
- Licensees required to use web-based forms



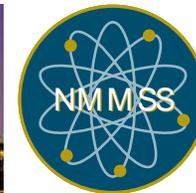
Information Collection, Management and Reporting

- NRC and Commerce will share system for receiving and reviewing reports
 - Web-based forms for data entry
 - NRC review of reported information for acceptability
- National security agencies will be informed of locations from which information is to be collected
 - NRC reporting activities are not national security activities
- DOE will collect information from DOE sites and submit to Commerce Department



IAEA Access

- Accesses are infrequent – in 2005 IAEA conducted 161 accesses in 40 countries (of the 70 countries with AP in force)
- Most accesses occur in conjunction with scheduled IAEA material accountancy inspections (134 of 161 were on sites)
- Limited nonproliferation purpose for accesses in United States
- IAEA access requests expected to be rare



IAEA Access

- IAEA notification at least 24 hours before access to occur
- IAEA expected to seek resolution of concern before seeking access
- Reporting entity will identify to NRC managed access needed to protect proprietary information and to meet safety and security regulations
- Safety and security escort by installation
- NRC escort required, other agencies as can be accommodated by licensee
- U.S.-approved equipment



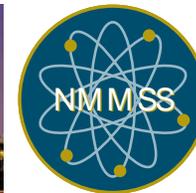
IAEA Access Facilitation

- Notification of IAEA request immediately after NRC informed
- NRC staff on-location as soon as possible to provide training and assist licensee preparations
- Entry Briefing
 - IAEA inspectors
 - NRC and other U.S. Government personnel
 - Licensee



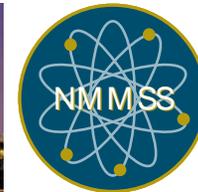
U.S. Government Actions

- Outreach to nuclear fuel cycle-related industry
- Development and testing of Additional Protocol database and reporting systems
- Identification of entities required to report
- Vulnerability assessments to protect national security and business sensitive information
- Information, training, and preparations for implementation of Additional Protocol



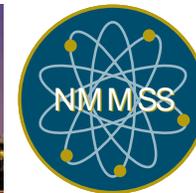
NRC Status

- Regulatory revisions
- Reporting forms
- Guidance documents and supporting information
 - Web-site



NRC Rulemaking

- Broadens scope of 10 CFR Part 75
 - Includes all NRC and Agreement State licensees versus only licensed facilities
- Rule changes incorporate Additional Protocol requirements into existing Part 75
 - Additional information to be reported
 - Additional IAEA access
 - Also amends 10 CFR Parts 40, 50, 60, 62, 70, 76, 95, 110, and 150
- Rulemaking awaiting Office of Management and Budget information collection approvals
 - Final rule
 - Coordination with Commerce Department rulemaking



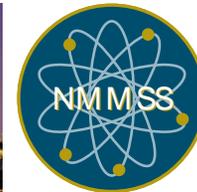
Guidance Document Development

- Who must report
- List of affected licensees
- Reporting guidance and instructions
- Access guidance
- Licensee notifications and communications



Guidance Document Development

- NRC Internal Website
 - Guidance documents
 - Procedures and instructions
 - Licensee contacts database



NRC Outreach

- Inform licensees of new requirements and identify newly affected licensees
- Presentations to NEI in 1997, 1998, 2004
- Technical meetings – NMMSS Users, INMM, ANS, Fuel Cycle Information Exchange (FCIX)
- Meetings and communications with affected licensees after rule published
- Additional Protocol website
 - NRC website
 - Interagency website

