

International Safeguards Agreements

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OFFICE OF **NONPROLIFERATION AND ARMS CONTROL (NPAC)**



INTERNATIONAL NUCLEAR SAFEGUARDS

Build capacity of the international atomic energy agency and partner countries to implement international safeguards obligations.



NUCLEAR EXPORT CONTROLS

Build domestic and international capacity to implement export control obligations.



NUCLEAR VERIFICATION

Support negotiation of and implement agreements and associated monitoring regimes to verifiably reduce nuclear weapons and nuclear programs.



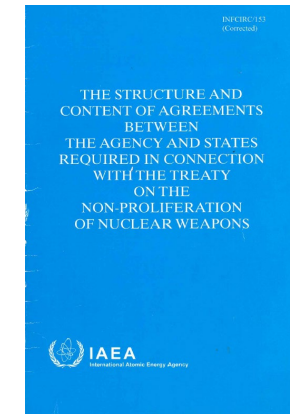
NONPROLIFERATION POLICY

Develops approaches and strategies to address emerging nonproliferation and arms control challenges and opportunities.

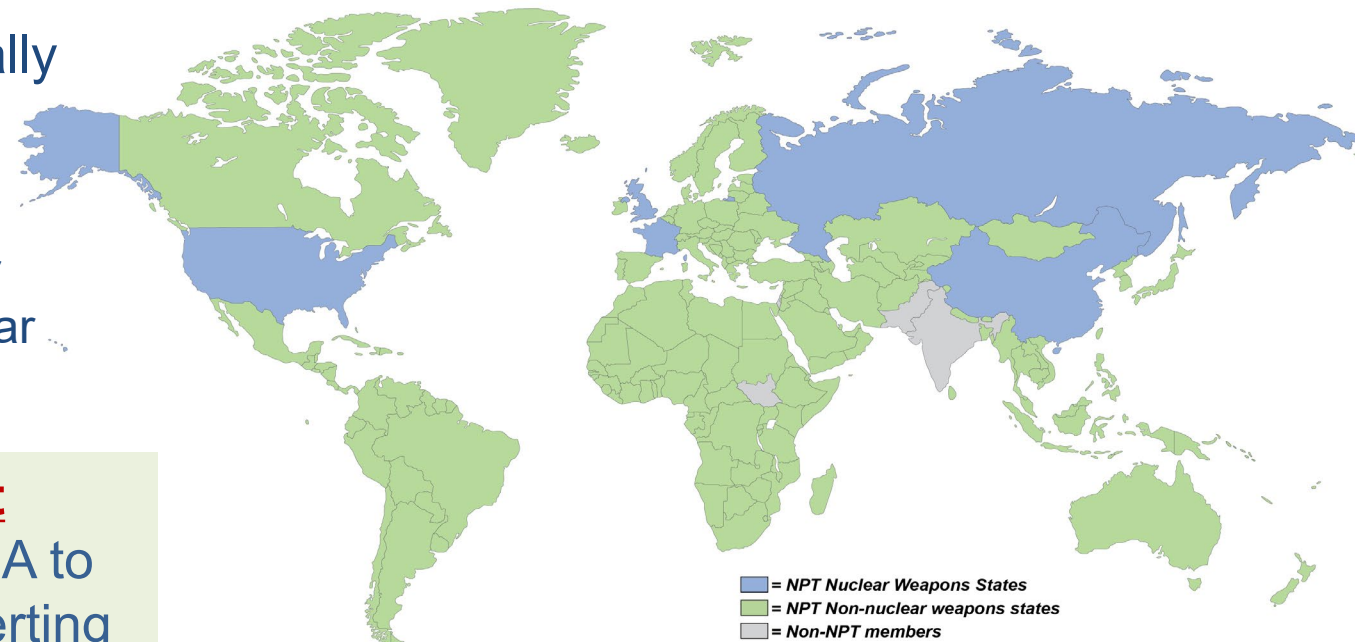
What are IAEA Safeguards?

- Safeguards are measures applied by the IAEA to ensure a country's **exclusively peaceful use** of nuclear material and facilities.
- IAEA Safeguards focuses on state-sponsored proliferation
- Nuclear facilities that are exported internationally will likely be subject to IAEA verification
 - All parties to the NPT **agree to require international safeguards be applied** to nuclear material and equipment transferred to non-nuclear weapon States (NNWS)

IAEA safeguards is a **treaty requirement** undertaken by countries that enables the IAEA to independently verify that a **country** is not diverting nuclear material from declared activities.



Comprehensive Safeguards Agreement (INFCIRC/153)





Comprehensive Safeguards Agreement (CSA) Basics (INFCIRC/153 (Corrected))

STATE OBLIGATIONS

Establish a State System of Accounting and Control

- Designate a State Authority with responsibility and authority to ensure safeguards obligations are met
- Normally entails establishing laws, regulations, and procedures (a national legal and regulatory framework) to include:
 - » A measurement system for determining quantities of nuclear material¹ received, produced, shipped, lost, or otherwise removed from inventories
 - » Procedures for physical inventory of nuclear material
 - » A record-keeping system at facilities, locations outside facilities (LOFs), and the State Authority, which tracks imports, exports, and inventories of nuclear material and changes thereto
 - » Procedures for carrying out safeguards tasks including reporting to the IAEA

¹ Nuclear material is any quantity and physical or chemical form (except ore and ore residues) of uranium, plutonium, and thorium.

Cooperate with the IAEA

- Provide correct, complete, and timely submissions of information
- Respond to requests for amplification or clarification of information
- Facilitate timely IAEA access to facilities and LOFs
- Respond to inspector designations and other IAEA requests
- Issue visas for designated inspectors in a timely manner
- Grant privileges and immunities to IAEA staff
- Provide protection against third party liability for nuclear damage
- Conclude Subsidiary Arrangements and Facility Attachments and comply with their procedures

Facilitate Access for IAEA Inspectors

Reasons for access:

- **Ad hoc inspections:** Verify initial inventory and changes thereto; identify and verify quantity and composition of nuclear material prior to export
- **Routine inspections:** Verify consistency of reports with facility records; verify nuclear material; verify information related to inventory abnormalities
- **Special inspections:** Verify information in special reports and obtain access when prior information and explanations are

“not adequate” for the IAEA to fulfill its responsibilities

- **Design information verification:** Verify safeguards relevant design information from construction through routine operations, shutdown, and decommissioning

Possible locations:

- Declared nuclear facilities and LOFs

Advance notice:

- Varies: set schedule, short notice, or unannounced

Provide Information to the IAEA (official submission by the State Authority)

- Location, chemical composition, and amount of all nuclear material in all peaceful nuclear activities within the territory of the State or under its jurisdiction anywhere
- Transfers of nuclear material between material balance areas
- Advance notification of imports from and exports to non-nuclear weapon States of all safeguarded material exceeding one effective kilogram
- Design information on facilities and information on LOFs, including details about the purpose, capacity, location, material flow, and layout

IAEA OBLIGATIONS

- Apply safeguards to all nuclear material
- Cooperate with the State
- Protect confidential State information
- Provide notice of approvals and withdrawals of IAEA inspectors
- Provide advance notification for all types of access, except for unannounced routine inspections
- Conduct independent measurements and observations
- Avoid hampering nuclear development or causing undue interference in nuclear activities
- Provide the State with the results and conclusions from inspection and verification activities
- Limit requests for information and data to minimum necessary



Additional Protocol (AP) Basics (INFCIRC/540 (Corrected))

STATE OBLIGATIONS

Provide Information to the IAEA (official submission by the State Authority)

- General information about nuclear fuel cycle-related research and development not involving nuclear material¹
- All buildings on the site of a nuclear facility or location outside facilities
- Certain manufacturing activities specific to the nuclear fuel cycle
- Locations, status, and production of uranium mines and concentration plants and thorium concentration plants
- Source material (uranium, thorium) holdings, exports, and imports greater than specific amounts
- Nuclear material exempted from safeguards
- Processing of certain nuclear waste
- Exports of especially designed equipment and non-nuclear reactor materials
- Ten-year official nuclear fuel cycle development plans

¹ Nuclear material is any quantity and physical or chemical form (except ore and ore residues) of uranium, plutonium, and thorium.

Cooperate with the IAEA

- Provide correct, complete, and timely submissions of information
- Respond to requests for amplification or clarification of information
- Facilitate IAEA access for complementary access
- Issue one year, multiple-entry travel visas for inspectors in a timely manner
- Ensure free communications by IAEA personnel for official business

Facilitate Complementary Access for IAEA Inspectors

Reasons for access:

- Assure the absence of undeclared nuclear material and activities
- Resolve a question or inconsistency related to declared information
- Confirm the decommissioned status of facilities and locations outside facilities
- Invitation from the State

Possible locations:

- All declared locations of nuclear sites, mines, concentration plants, and locations holding source, exempted, or waste materials
- Other locations if a question or inconsistency arises

Advance notice:

- At least 24 hours, or 2 hours if the IAEA is already on the site

Declaration Due Dates

Initial

Within 180 days of entry into force

Quarterly: Exports

Within 60 days of the end of each quarter on exports of especially designed equipment and non-nuclear reactor materials or null declarations if no exports.

Annual: Update

By May 15th every year. Applies to all activities in initial declaration and other activities. Must declare changes from previous calendar year or submit null declarations if no changes.

IAEA OBLIGATIONS

- Make arrangements with the State for managed access, when requested
- Provide the State with an opportunity to clarify or respond to IAEA questions
- Protect confidential State information
- Provide notice of approvals and withdrawals of IAEA inspectors
- Provide the State with the results and conclusions from AP activities



Issues to Consider for Designers/Vendors/Licensees

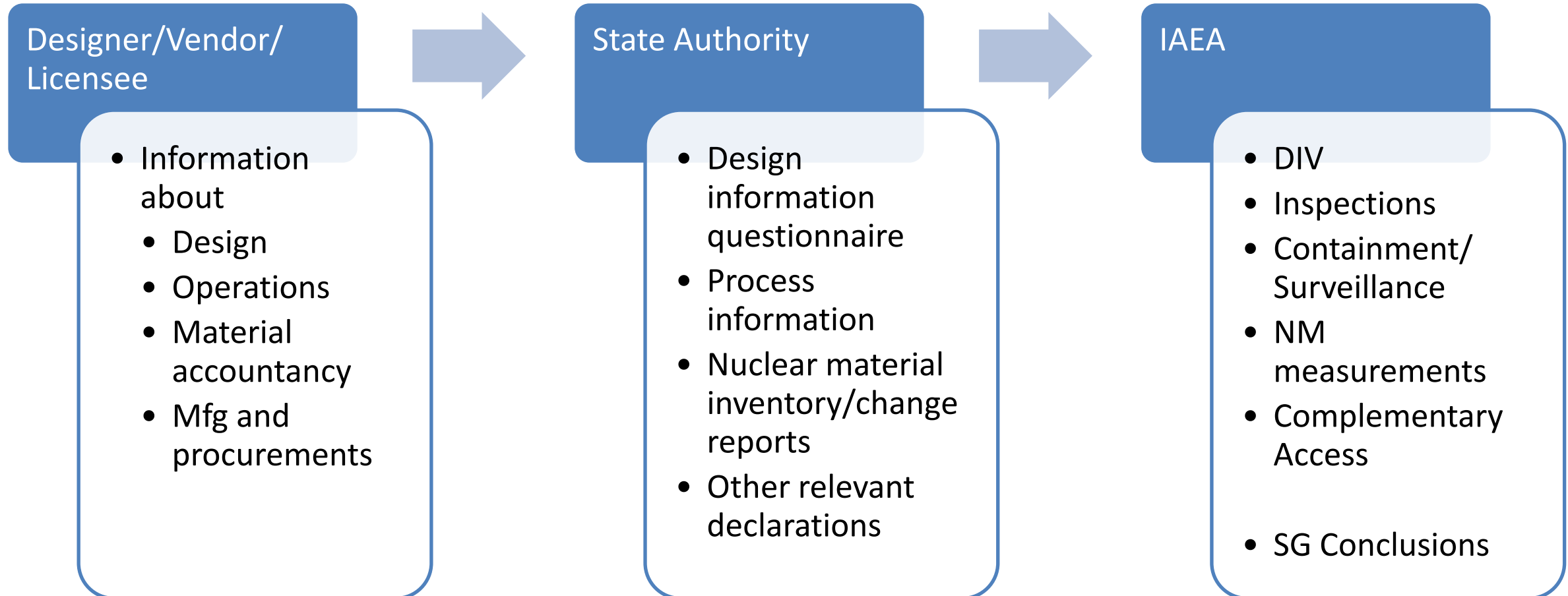
CSA's

- Provision of early design information, and design changes
- Receiving Design Information Verification visits by IAEA
- Hosting C/S and measurement equipment in the facility
- Receiving inspections at facilities (records, measurements, instruments)

AP's

- R&D not involving nuclear material (gov't and private research)
- Mfg of certain declarable components
- Imports/exports of certain nuclear-use equipment
- Receiving short-notice Complementary Access visits to relevant locations

Information Flow





For Exports Overseas, Vendors Would be Expected to:

- Abide by all U.S. laws and regulations, including, where appropriate, the implementation of IAEA safeguards pursuant to United States-IAEA safeguards agreements
- Provide timely SG-relevant information, including, design information, cooperative R&D being undertaken, ex/im, NM inventory/process information, etc. to the regulatory authority in the importing State
- Cooperate with the regulatory authority in the importing State to meet their domestic and international obligations, including hosting domestic and IAEA inspections



Thank you for your attention!

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