

IAEA Safeguards

Delivering Effective Nuclear
Verification for World Peace



The IAEA makes a vital contribution to international security. Through safeguards, the IAEA deters the spread of nuclear weapons and provides credible assurance that States are honouring their international obligations to use nuclear material only for peaceful purposes. Its independent verification work allows the IAEA to facilitate building international confidence and strengthening collective security for all.



IAEA

60 Years

Atoms for Peace and Development

Why Do Safeguards Matter?



Nuclear material and technology have the potential to contribute to health and prosperity throughout the world. However, nuclear material and technology may also be used for the development of nuclear weapons.

The IAEA implements a set of technical measures, or "safeguards", to independently verify a State's legal commitment not to divert nuclear material from peaceful nuclear activities to nuclear weapons or other nuclear explosive devices. Safeguards serve as an important confidence building measure through which a State can demonstrate – and other States can be assured – that nuclear material and technology are being used only for peaceful purposes. The IAEA and its safeguards were established nearly 60 years ago so that nuclear material and technology could be placed only in the service of peace and the development of humankind while protecting against its misuse. Without IAEA safeguards, there would be far less nuclear cooperation and transfer of nuclear technology.

Safeguards Legal Framework



IAEA safeguards are embedded in legally binding agreements. Pursuant to the IAEA's Statute, which authorizes the IAEA to establish and administer safeguards, States accept IAEA safeguards through the conclusion of agreements with the IAEA. These legal agreements are of three types:

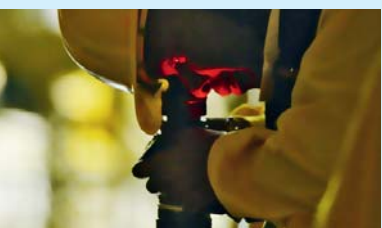
- Comprehensive safeguards agreements (CSAs) with non-nuclear-weapon States (NNWSs) parties to the Nuclear Non-Proliferation Treaty (NPT) and to regional nuclear-weapon-free zone (NWFZ) treaties;
- Voluntary offer safeguards agreements (VOAs) with the nuclear-weapon States (NWSs) parties to the NPT; and
- Item-specific safeguards agreements that are currently implemented in States that are not a party to the NPT.

The vast majority of safeguards agreements are those that have been concluded by the IAEA with NNWSs parties to the NPT. Under the NPT, the NNWSs parties have committed not to produce or otherwise acquire nuclear weapons, to place all of their nuclear material and activities under IAEA safeguards and to allow the IAEA to verify their commitments.

Additional protocols to safeguards agreements enhance both the effectiveness and efficiency of safeguards implementation in States. The additional measures provided for in an additional protocol to a CSA include provisions for broader information about, and inspector access to, all aspects of a State's nuclear fuel cycle.

A State with little or no nuclear material may be eligible to conclude a small quantities protocol (SQP) to its CSA, which reduces the safeguards activities conducted in the State.

Key Facts (June 2016)



- 182 States have safeguards agreements in force, comprising 174 States with CSAs, five States with voluntary offer agreements and three States with item-specific safeguards agreements.
- Additional protocols are in force in 128 States. An additional protocol is applied provisionally for the Islamic Republic of Iran pending entry into force. Nineteen States have signed additional protocols but have yet to bring them into force.

The purpose of IAEA safeguards is to verify States' legal commitments under their respective safeguards agreements with the IAEA. Safeguards implementation during an annual cycle comprises four fundamental processes:

1. **Collection and evaluation of safeguards relevant information.** The IAEA collects safeguards relevant information about a State and processes and reviews it in order to evaluate its consistency with the State's declarations about its nuclear programme and other safeguards relevant information available to IAEA.

2. **Development of a safeguards approach** for a State, which includes the safeguards measures to meet the concrete technical objectives for verifying the State's declarations.

3. **Planning, conducting and evaluating safeguards activities.** The IAEA develops a plan specifying the safeguards activities to be conducted both in the field and at Headquarters. Once an activity has been conducted, the IAEA evaluates the extent to which it has attained the technical objective(s) and identifies any inconsistencies necessitating follow-up activities.

4. The **safeguards conclusions** drawn by the IAEA, which are based on its independent verification and findings, are the final product of the annual safeguards implementation cycle. The conclusions provide credible assurance to the international community that States are abiding by their safeguards obligations.

Safeguards in Practice



2015 Facts

- 200,110 significant quantities* of nuclear material under safeguards
- 1,286 nuclear facilities and locations outside facilities (LOFs) under safeguards
- 785,087 nuclear material accountancy entries in States reports received
- 2,805 in-field verifications, including in-field inspections, design information verifications and complementary accesses conducted worldwide, constituting 13,248 calendar days in the field
- 23,300 seals deployed and 1,416 surveillance cameras in operation
- 967 nuclear material and environmental samples collected
- 407 satellite images collected

The 2015 budget of the Department of Safeguards totalled 132.5 million euros and 43.3 million euros from extra-budgetary contributions. 883 staff and contractors from 96 different Member States work in the Department of Safeguards.

* *One significant quantity is the approximate amount of nuclear material for which the possibility of manufacturing a nuclear explosive device cannot be excluded.*



Current Trends



The field of nuclear technology does not stand still. The amount of nuclear material and the number of nuclear facilities coming under IAEA safeguards continue to grow steadily.

In the past five years, 7 new safeguards agreements and 23 new additional protocols entered into force. The amount of nuclear material under safeguards has increased by 17 per cent and the number of nuclear facilities under safeguards has risen by 5 per cent. Demands are also increasing as more facilities are decommissioned, generating additional needs to verify nuclear material packaging, movement and disposition.

IAEA safeguards will need to keep evolving. Further improvements and optimization are necessary to guarantee credible safeguards and to be able to respond effectively and promptly to new verification demands from IAEA Member States. These will be achieved by making full use of available modern technologies, by streamlining internal processes and by encouraging States, where necessary, to improve their cooperation to implement safeguards. With the support of its Member States, the IAEA will continue to live up to the expectation of the international community to verify the peaceful use of nuclear material and technology, thereby deterring the spread of nuclear weapons.

More information:

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Joining the Department of Safeguards
<https://www.iaea.org/about/employment/sg>

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