



ICRC

ICRC Briefing Note

Safeguards and the Treaty on the Prohibition of Nuclear Weapons¹

1. Introduction²

“Safeguards” are a set of technical measures that aim to ensure that States are using nuclear material and technology solely for peaceful purposes, and to confirm that these are not being misused or diverted for nuclear-weapons activities. Safeguards are contained in legally binding agreements required or voluntarily undertaken under the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT), treaties establishing nuclear-weapon-free zones, and the 2017 Treaty on the Prohibition of Nuclear Weapons (TPNW).

The primary legal basis for safeguards requirements is found in the NPT. Under Article III of the NPT, each non-nuclear-weapon State Party³ is required to conclude a safeguards agreement with the International Atomic Energy Agency (IAEA). Under the safeguards agreement, the IAEA independently verifies the State’s legal commitment not to divert nuclear material from peaceful nuclear activities to the development of nuclear weapons or other nuclear explosive devices. Verification measures applied by the IAEA include on-site inspections, visits, and ongoing monitoring and evaluation.

There are two principle types of safeguards agreement administered by the IAEA: the Comprehensive Safeguards Agreement (CSA), which is mandatory for all non-nuclear-weapon States party to the NPT, and the Additional Protocol (AP), which these States may voluntarily agree to.⁴

The AP is a protocol to the CSA that significantly increases the IAEA’s ability to verify the peaceful use of all nuclear material, as compared with the IAEA’s powers under the CSA. The AP requires information about, and access to, all parts of a State’s nuclear fuel cycle, from uranium mines to nuclear waste sites.

Broadly speaking, a CSA facilitates verification relating to the non-diversion of **declared** nuclear material and activities for nuclear-weapons programmes, while an AP additionally facilitates verification concerning the absence of **undeclared** nuclear material and activities.

¹ This paper is based in part on a more detailed article posted on 11 April 2018 by Dr Eirini Giorgou, *Safeguards Provisions in the Treaty on the Prohibition of Nuclear Weapons*, Arms Control Law, <https://armscontrollaw.com/2018/04/11/safeguards-provisions-in-the-treaty-on-the-prohibition-of-nuclear-weapons/>

² For more details on IAEA safeguards, see International Atomic Energy Agency, *IAEA Safeguards: Serving Nuclear Non-Proliferation*, 2nd edition, 2017.

³ The NPT defines nuclear-weapon States Parties as those that had manufactured and detonated a nuclear weapon or other nuclear explosive device prior to 1 January 1967. All other States Parties are considered non-nuclear-weapon States. The five nuclear weapon States under the NPT are: China, France, Russia, the United Kingdom, and the United States.

⁴ Once the State has concluded an AP agreement with the IAEA, it is legally bound by that agreement.

2. Safeguards requirements under the TPNW

The TPNW's safeguards requirements are found in Articles 3 and 4 (full text in the Annex to this note), which respectively cover two broad categories of States Parties:

2.1 States Parties that did not possess nuclear weapons after 7 July 2017 (Article 3)

Article 3(1) requires that each State Party **that did not possess nuclear weapons after 7 July 2017** (the date on which the Treaty was adopted), at a minimum, maintain its IAEA safeguards obligations in force at the time the Treaty enters into force, whether these are only under a CSA or also under an AP.

As at 27 June 2018, the IAEA had established CSAs with 174 non-nuclear-weapon States. Of these, 132 States have also concluded APs.

Under Article 3(2), if a State Party that did not possess nuclear weapons after 7 July 2017 does not have a safeguards agreement in place, it must conclude and maintain a CSA with the IAEA. This CSA must enter into force no later than 18 months following the entry into force of the Treaty for that State.

2.2 States Parties that possessed nuclear weapons (Article 4(1) and (3))

The safeguards agreements required under Article 4(1) and (3) concern two categories of States Parties: those that possessed nuclear weapons after 7 July 2017 but **destroyed them before they joined the Treaty** (also known as the “destroy then join” pathway), and those that **possess nuclear weapons at the time that they join the Treaty** (the “join then destroy” pathway).⁵

Under Article 4(1) and (3), each such State Party must conclude and maintain a safeguards agreement with the IAEA. This agreement must be “sufficient to provide credible assurance of the non-diversion of declared nuclear material from peaceful nuclear activities and of the absence of undeclared nuclear material or activities in that State Party as a whole”.

For a State Party that has taken the “destroy then join” pathway, such safeguards agreement must enter into force no later than 18 months after the Treaty enters into force for it (Article 4(1)).

For a State that has taken the “join then destroy” pathway, the safeguards agreement must enter into force no later than 18 months “after the date of initiation of the negotiations” of the agreement, which must commence no later than the date upon which the implementation of the destruction plan referred to in Article 4(2) is complete. To be clear, such an agreement relates to safeguards to be applied once the elimination of nuclear weapons is complete for the purpose of ensuring that, from then on, nuclear material and technology are used solely for peaceful purposes. It should not be confused with the verification regime (including on-site inspections) that would be put in place during the process of destruction in accordance with the “legally binding, time-bound plan for the verified and irreversible elimination of that State Party’s nuclear-weapon programme” required by Article 4(2) of the Treaty.

⁵ The term “join” is used here to mean entry into force of the Treaty for the State Party.

3. Frequently expressed concerns about the TPNW's safeguards and ICRC responses

- **Does the TPNW weaken the existing safeguards regime?**

It has been claimed that the TPNW weakens the existing safeguards regime by (a) not requiring a safeguards agreement as a prerequisite for adherence to the Treaty and (b) by not establishing the AP as the minimum standard for all States Parties.

In the ICRC's view, the TPNW does not weaken the existing safeguards regime. Below, the ICRC analyses each of the above claims.

- (a) The approach taken by the TPNW is similar to that of the NPT, as the latter does not require that an IAEA safeguards agreement be in place before a State joins. Under Article III of the NPT, "[e]ach non-nuclear-weapon State Party to the Treaty undertakes to accept safeguards, as set forth in an agreement **to be negotiated and concluded** with the International Atomic Energy Agency". Thus, a State joining the NPT today would become a State Party and only subsequently negotiate the aforementioned agreement.

It is also important to note that the TPNW actually goes further than the NPT with regard to nuclear possessor States Parties, by imposing on them a direct obligation to negotiate, conclude and maintain an adequate safeguards agreement. Currently, nuclear-weapon States are under no such obligation under the NPT, although they do have voluntary arrangements in place regarding safeguards for some of their nuclear material.

- (b) Under the NPT, the conclusion of a CSA with the IAEA is mandatory for non-nuclear-weapon States Parties, while concluding an AP is an optional measure. During the negotiation of the TPNW, there were divergent views on which type of safeguards agreement should be required of all States party to the Treaty. The final text reflects a compromise. For those that already have an AP in place, its retention (alongside the CSA) becomes a legal requirement under the TPNW; for those that do not, only the retention of the CSA is legally required, although all States Parties are implicitly encouraged under Article 3(1) to adopt "additional relevant instruments" (which would include the AP).

- **Are the TPNW safeguards provisions that apply to States Parties that possess nuclear weapons too weak?**

It has been argued that the safeguards clauses contained in Article 4 of the TPNW and applicable to nuclear possessor States Parties are vague and lack specificity, thereby weakening the TPNW's safeguards regime.

In the ICRC's view, the safeguards clauses of Article 4 adopt a flexible approach to accommodate the differing circumstances of States Parties that possessed nuclear weapons after 7 July 2017, based on a strict common safeguards standard.

As explained above, Article 4 sets a single baseline standard for safeguards, applicable to all nuclear possessor States Parties (whether they "destroy then join" or "join then destroy"), which is that their safeguards agreement must be "sufficient to provide credible assurance of the non-diversion of declared nuclear material from peaceful nuclear activities and of the absence of undeclared nuclear material or activities in that State Party as a whole". While the text of Article 4(1) and (3) does not make explicit reference to the type of safeguards agreement that the State Party is required to conclude, this is for legitimate reasons.

In the absence of the participation in the TPNW negotiations of any States possessing nuclear weapons (or indeed of the IAEA, which holds the mandate and expertise on nuclear safeguards), the negotiators of the TPNW focused on describing the minimum standard of assurance that any safeguards applying to nuclear possessor States would need to provide – namely, the credible assurance of the non-diversion of declared nuclear material from peaceful nuclear activities and of the absence of undeclared nuclear material or activities in the State as a whole – rather than naming the specific instrument needed to ensure that standard. Thus, the text of Article 4 preserves, for the IAEA and those States Parties to whom the Article applies, the flexibility and authority to determine what safeguards agreement must be adopted.

- **Do the TPNW safeguards risk becoming outdated if new safeguards standards are decided upon in the IAEA context in the future?**

In the ICRC's view, this concern is unwarranted. The TPNW, like the NPT, allows for the adoption of new, stronger safeguards standards.

Like the NPT, the TPNW sets the CSA as a minimum standard for States that do not possess nuclear weapons. Yet Article 3(1), and indeed Article 4(1) and (3) applicable to nuclear possessor States, explicitly provide that this is without prejudice to additional relevant instruments that a State Party may adopt in the future. This caveat was added not only to implicitly encourage States to upgrade their safeguards standards by adopting an AP, but also to accommodate any new, higher standards that might be elaborated in the future in the context of the IAEA and beyond.

ANNEX
Articles 3 and 4 of the TPNW

Article 3
Safeguards

1. Each State Party to which Article 4, paragraph 1 or 2, does not apply shall, at a minimum, maintain its International Atomic Energy Agency safeguards obligations in force at the time of entry into force of this Treaty, without prejudice to any additional relevant instruments that it may adopt in the future.
2. Each State Party to which Article 4, paragraph 1 or 2, does not apply that has not yet done so shall conclude with the International Atomic Energy Agency and bring into force a comprehensive safeguards agreement (INFCIRC/153 (Corrected)). Negotiation of such agreement shall commence within 180 days from the entry into force of this Treaty for that State Party. The agreement shall enter into force no later than 18 months from the entry into force of this Treaty for that State Party. Each State Party shall thereafter maintain such obligations, without prejudice to any additional relevant instruments that it may adopt in the future.

Article 4
Towards the total elimination of nuclear weapons

1. Each State Party that after 7 July 2017 owned, possessed or controlled nuclear weapons or other nuclear explosive devices and eliminated its nuclear-weapon programme, including the elimination or irreversible conversion of all nuclear-weapons-related facilities, prior to the entry into force of this Treaty for it, shall cooperate with the competent international authority designated pursuant to paragraph 6 of this Article for the purpose of verifying the irreversible elimination of its nuclear-weapon programme. The competent international authority shall report to the States Parties. Such a State Party shall conclude a safeguards agreement with the International Atomic Energy Agency sufficient to provide credible assurance of the non-diversion of declared nuclear material from peaceful nuclear activities and of the absence of undeclared nuclear material or activities in that State Party as a whole. Negotiation of such agreement shall commence within 180 days from the entry into force of this Treaty for that State Party. The agreement shall enter into force no later than 18 months from the entry into force of this Treaty for that State Party. That State Party shall thereafter, at a minimum, maintain these safeguards obligations, without prejudice to any additional relevant instruments that it may adopt in the future.
2. Notwithstanding Article 1 (a), each State Party that owns, possesses or controls nuclear weapons or other nuclear explosive devices shall immediately remove them from operational status, and destroy them as soon as possible but not later than a deadline to be determined by the first meeting of States Parties, in accordance with a legally binding, time-bound plan for the verified and irreversible elimination of that State Party's nuclear-weapon programme, including the elimination or irreversible conversion of all nuclear-weapons-related facilities. The State Party, no later than 60 days after the entry into force of this Treaty for that State Party, shall submit this plan to the States Parties or to a competent international authority designated by the States Parties. The plan shall then be negotiated with the competent international authority, which shall submit it to the subsequent meeting of States Parties or review conference, whichever comes first, for approval in accordance with its rules of procedure.
3. A State Party to which paragraph 2 above applies shall conclude a safeguards agreement with the International Atomic Energy Agency sufficient to provide credible assurance of the non-diversion of declared nuclear material from peaceful nuclear activities and of the absence of undeclared nuclear material or activities in the State as a whole. Negotiation of such agreement shall commence no later than the date upon which implementation of the plan referred to in paragraph 2 is completed. The agreement shall enter into force no later than 18 months after the date of initiation of negotiations. That State Party shall thereafter, at a minimum, maintain these safeguards obligations, without

prejudice to any additional relevant instruments that it may adopt in the future. Following the entry into force of the agreement referred to in this paragraph, the State Party shall submit to the Secretary-General of the United Nations a final declaration that it has fulfilled its obligations under this Article.

4. Notwithstanding Article 1 (b) and (g), each State Party that has any nuclear weapons or other nuclear explosive devices in its territory or in any place under its jurisdiction or control that are owned, possessed or controlled by another State shall ensure the prompt removal of such weapons, as soon as possible but not later than a deadline to be determined by the first meeting of States Parties. Upon the removal of such weapons or other explosive devices, that State Party shall submit to the Secretary-General of the United Nations a declaration that it has fulfilled its obligations under this Article.
5. Each State Party to which this Article applies shall submit a report to each meeting of States Parties and each review conference on the progress made towards the implementation of its obligations under this Article, until such time as they are fulfilled.
6. The States Parties shall designate a competent international authority or authorities to negotiate and verify the irreversible elimination of nuclear-weapons programmes, including the elimination or irreversible conversion of all nuclear-weapons-related facilities in accordance with paragraphs 1, 2 and 3 of this Article. In the event that such a designation has not been made prior to the entry into force of this Treaty for a State Party to which paragraph 1 or 2 of this Article applies, the Secretary-General of the United Nations shall convene an extraordinary meeting of States Parties to take any decisions that may be required.