

INTERPRETING THE AMENDED CONVENTION ON THE PHYSICAL PROTECTION OF NUCLEAR MATERIAL IN AN EVOLVING WORLD

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Abstract

In March 2022, parties to the amended Convention on the Physical Protection of Nuclear Material (A/CPPNM) will gather for the first time to review the amended convention. The purpose of the conference, as stated in Article 16, is to review implementation and adequacy of the convention in the light of the then prevailing situation. A key challenge for parties will be coming to a determination about the convention's adequacy given how little precedent there is for how to do so. This paper identifies factors to consider when reviewing the convention's adequacy. The paper distinguishes adequacy of implementation of the convention — which will require continuous nuclear security improvements as threats, technology, and best practices evolve — from adequacy of the convention's scope and text. Finally, it will point to Article 16's phrase "in the light of then prevailing situation" as evidence demonstrating the intended longevity of the amended convention and its ability to withstand changes to the prevailing situation. The amended convention, when viewed in this context, must be interpreted as a living, breathing document with a scope that is broad enough to capture evolutions to the prevailing situation, and that its implementation should be regularly reviewed. While implementation of the convention must continually evolve, the convention's scope and text is adequate in its current form. To reflect on the continually evolving implementation needed for a strong, effective, and sustainable treaty regime, parties should agree to hold regular review conferences as a standing arrangement. Regular review conferences will enable a sustainable treaty regime that can adapt as threats, technology, and best practices evolve. And by agreeing to regular review conferences, parties can turn the amended CPPNM into a living, breathing tool for dialogue and progress and demonstrate their commitment to building a strong, effective, and sustainable treaty regime.

Authors note: this paper was written in March 2022, before the Conference of the Parties to the Amendment to the Convention on the Physical Protection of Nuclear Materials.

1. INTRODUCTION AND SCOPE

The first ever Conference of the Parties to the Amendment to the Convention on the Physical Protection of Nuclear Materials (A/CPPNM) will be held in Vienna at the end of March 2022. This conference has been years in the making, first as it took over a decade for the Amendment to enter into force, and second as a global pandemic shut down the world and large conferences were no longer safe. Now, the conference will take place during a war in Europe and military actions around nuclear power plants. The turbulence of the last two years has underlined the ongoing importance of nuclear security. Rather than becoming irrelevant because of global events, nuclear security has become more relevant than ever.

In this context, parties to the A/CPPNM will be examining the Amendment in accordance with Article 16.1, which provides the mandate and directions for this review. It directs the depositary, the IAEA, to convene a conference of states parties five years after entry into force. The mandate of the conference is to "review the implementation of this Convention and its adequacy as concerns the preamble, the whole of the operative part and the annexes in the light of the then prevailing situation." [1]

Although the mandate is sparse, it provides direction to review two important aspects of the A/CPPNM. The first is the implementation, which is a concept that is both readily understandable and has been used in other treaty contexts.¹ The second is adequacy of the convention, without much clarity as to what is meant by "adequacy" or how parties should assess it. Both are meant to be reviewed "in the light of the then prevailing situation". While states have experience with discussing implementation of hard and soft law, understanding how to review the adequacy of the

¹ See the Convention on Nuclear Safety and the Treaty on the Non-Proliferation of Nuclear Weapons, among others.

A/CPPNM in today's context has posed particular challenges to parties. Certainly, understanding the prevailing situation will be important to the review of the A/CPPNM, however it goes beyond the scope of this paper. This paper instead will focus on examining what parties could understand "adequacy" to mean, the implications of judgements on adequacy, and how to strengthen the A/CPPNM regime in the years to come.

2. THE QUEST FOR ADEQUACY

Given the paucity of information given in Article 16.1 about the intent behind the term "adequacy", parties will need to establish their own criteria for determining the adequacy of the A/CPPNM. Parties will also need to determine what is being assessed as adequate. In this paper, adequacy will be considered in two dimensions. The first will be the adequacy of the amended convention to achieve the stated purposes of the A/CPPNM. The second is the adequacy of the implementation of the amended convention. With each of these dimensions, different criteria to assess the adequacy of the A/CPPNM will be proposed, from which parties can then make a determination about the adequacy of the A/CPPNM as a whole.

2.1 Adequacy of the scope of the text

One way to assess adequacy is comparing the text of the A/CPPNM against the purpose of the Convention as set out in Article 1A, which is:

to achieve and maintain *worldwide effective physical protection of nuclear material used for peaceful purposes and of nuclear facilities used for peaceful purposes; to prevent and combat offences relating to such material and facilities worldwide; as well as to facilitate co-operation among States Parties* to those ends. (emphasis added) [1]

The first criteria to measure the text of the A/CPPNM is to assess the adequacy is the overall scope of the A/CPPNM. In assessing the scope of the amended convention, parties can examine the operative articles to confirm that the amended convention addresses all of the topics mentioned in Article 1A, namely a) worldwide effective physical protection, b) prevention and combating offences related to nuclear material and facilities, and c) facilitating cooperation among states parties.

An overview of the articles can confirm that those three areas are in fact addressed in the scope through the A/CPPNM. Physical protection is addressed extensively in Articles 2A, 3, and 4, as well as Annex I and II. In it, the Fundamental Principles of Physical Protection of Nuclear Material and Nuclear Facilities are laid out, as well as principles for international import and export of nuclear materials. The Annexes include levels of physical protection to be applied to international transport of nuclear materials (Annex 1) as well as categorizations of nuclear material (Annex II).

Criminalization measures are laid out in Articles 7-13. Article 7 outlines what offenses should be criminalized, while Article 8 sets out measures to establish jurisdiction. Articles 9-11 address extradition and fair proceedings. These articles clearly obligate measures to prevent and combat offences under the convention.

Cooperation measures are covered in Articles 5, which provides a legal basis for cooperation with other states, the IAEA, and other organizations on guidance for the development of a national physical protections system for nuclear materials in domestic use, storage, and transport, nuclear materials in international transport, and nuclear facilities. It also provides legal mechanism for cooperation to prevent the misuse of nuclear material and sabotage of nuclear facilities.

Taken together, the scope of the A/CPPNM reflects the purpose of Article 1A. As such, parties could conclude that the scope of the preamble, the whole of the operative part and the annexes are adequate to achieve the purpose of the amended convention.

2.2 Adequacy of the content of text

Having examined the scope of text, the second criteria by which to assess the adequacy of the text of the A/CPPNM is to examine the content of the texts. Parties will need to determine if there is enough guidance within the text of the amended convention to meet the purpose of the A/CPPNM as set out in Article 1. When thinking about the adequacy of the content, it is important to consider the overall international architecture of nuclear security.

Today, the legal framework for nuclear security is a patchwork of legal instruments of different kinds, ranging from legally binding conventions to non-binding codes of conduct. These legal instruments are also under the authority of different United Nations organizations, including the United Nations itself, the UN Security Council, the IAEA, the International Maritime Organization, and the International Civil Aviation Organization. The CPPNM and the Amendment plays a unique role in that framework as the only legally binding treaty that requires physical protection of nuclear materials in domestic use, storage, and transport, nuclear materials in international transport, and nuclear facilities.

Given its legal status, the A/CPPNM regime is a vital component of the international nuclear security architecture. It should be considered the basis of cooperation on nuclear security, and parties should view it as a foundation for nuclear security rather than a ceiling for their ambition. A strong A/CPPNM regime will facilitate the peaceful use of nuclear materials so that countries around the world can enjoy the benefits of nuclear technology while also ensuring that nuclear materials and facilities remain secure.

As parties read and interpret the text of the A/CPPNM, legal interpretations should be rigorous enough to keep true to the intent of the document. At the same time, these interpretations should also allow the amended convention to be a living document. Holding these two principles in tension, parties could conclude that the core principles of the A/CPPNM are correct, but that implementation of those principles need to continually evolve “in light of the then prevailing situation”. For example, the core tenants of protecting confidentiality are enshrined in Article 6, but implementation of that article must take into account changes in cyber and information security, which has grown in importance since the early 2000s when the amendment was developed. Likewise, criminalization and prosecution of certain acts will remain an obligation for parties, but how cases are prosecuted can develop with more effective methods or relevant technological developments.

An overly strict interpretation of the A/CPPNM would needlessly constrain the amended convention’s application to a fixed set of circumstances that would freeze the convention in time. It would also work against the mandate set out in Article 16 to consider the amendment “in light of the then prevailing situation.” International law changes very slowly, so a restrictive interpretation of the A/CPPNM would leave dangerous gaps in the international legal framework for physical protection, criminalization, and international cooperation to prevent nuclear terrorism or use of nuclear materials for nefarious ends.

2.3 Adequacy of Implementation

Another dimension of “adequacy” is in the implementation of the provisions of the treaty. The phrase “its adequacy” in Article 16 could refer to the adequacy of the convention, which is addressed above, or to the adequacy of implementation. When looking at adequacy of implementation, there are several questions that are worth asking. Are parties pursuing the principles of continuous improvement? Are they responding to changing threats, technologies, and practices?

One potential conclusion for parties to draw is that the scope of the amended convention is adequate, but the global implementation is still inadequate. States may also find that their national implementation is adequate in light of the current situation, but that future developments may necessitate further improvements. The field of nuclear security is based on the premise that more can always be done, as expressed through the phrase of “continuous improvement” that is a component of nuclear security culture. States’ implementation of the A/CPPNM vary by degrees, based upon national circumstances, date of ratification, and national nuclear infrastructure. All of these will need to be taken into account when considering the adequacy of implementation.

Recent global developments have demonstrated that the requirement to assess implementation “in light of the then prevailing situation” demands continuous assessment. Global events can change the prevailing situation in very short timeframes, and nuclear security must also keep up with the times.

3. IMPLICATIONS OF ADEQUACY

A judgement by parties that the A/CPPNM is adequate in scope but not implementation would naturally lead to a regular review process. Parties should share progress as well as lessons learned and good practices in implementation. Continually assessing how the international community is doing in implementing these measures will build confidence in nuclear security around the world as good nuclear security practices are shared and adopted around the world. Regular reviews would also facilitate information sharing about the prevailing situation and ways to respond to new and emerging challenges, threats, and opportunities.

In order to foster this culture of continual improvement, parties should agree at this first review conference to hold regular reviews, not just upon the request of a majority of states parties, but as a standing agreement. These reviews can be flexible in their periodicity, as each review conference could decide the date for the following review conference based upon the diplomatic calendar. But the act of meeting regularly to review the A/CPPNM will build a sustainable treaty regime that can adapt as threats, technology and best practices evolve.

4. NEXT STEPS: PEERING INTO THE FUTURE

Parties should also consider ways to strengthen the A/CPPNM through the review process. Certain parts of the A/CPPNM may be vague or difficult to interpret. The review conference could address concerns about interpretation through mechanisms like working papers, technical reports, or other documents that come out of the review process beyond a final outcome document. These documents could support state implementation of their obligations and address areas where the text may be inadequate by providing clarifications that the states parties agree upon. This would be a way to use soft law to complement hard law and build a body of practice around the Amendment that would strengthen its application overall.

The A/CPPNM is adequate to face the challenges of the future for nuclear security, but more work needs to be done to fully implement the amendment. This first review conference is an important opportunity to acknowledge that as a community and set the stage for ongoing dialogue on this to strengthen nuclear security in the future.

REFERENCES

- [1] Amendment to the Convention on the Physical Protection of Nuclear Material, INFCIRC/274/Rev.1/Mod. 1 (Corrected), IAEA, Vienna (18 October 2021).