

Testimony Before
U.S. House Committee on Foreign Affairs Subcommittees on
the Middle East, North Africa, and International Terrorism,
and Asia, the Pacific and Nonproliferation

“50 Years of the Non-proliferation Treaty: Strengthening the NPT in the
Face of Iranian and North Korean Nonproliferation Challenges”
March 3, 2020

Richard Johnson
Senior Director for Fuel Cycle and Verification
Nuclear Threat Initiative

Chairman Deutch, Chairman Bera, Ranking Member Wilson, Ranking Member Yoho, thank you for inviting me to testify this morning before your subcommittees. The subject of this hearing is timely, as we are just two months away from the opening session of the 2020 Review Conference of the Nuclear Non-proliferation Treaty (NPT).

The NPT in Historical Context: A Global Bargain That Has (Mostly) Worked

Since its entry into force in 1970, the NPT has proven to be a durable foundation for the global nuclear nonproliferation regime. It is important to remember the context in which the NPT was negotiated. In the late 1960s, the United States and the Soviet Union were deep into the Cold War, with Washington and Moscow engaged in a global ideological competition and a burgeoning nuclear arms race. China had completed its first nuclear weapons test in 1964, just four years prior to the opening of the NPT for signature. The conventional wisdom was that many more states would acquire nuclear weapons in the decades to come – indeed, in 1963 President Kennedy expressed concern that there could be “15 or 20” nuclear powers by 1975. In sum, the world appeared headed toward a future of greater proliferation, increased risks, and a much higher chance of the use of nuclear weapons.

Fast forward to 2020. On the 50th anniversary of the NPT, many of these dire predictions have failed to come true. Nevertheless, a small number of states have acquired nuclear weapons since the NPT’s entry into force, and all but one – North Korea – did so having never been a party to the treaty. U.S. and Soviet – later Russian – efforts at arms control have succeeded in reducing substantially both the overall stockpiles of nuclear weapons globally, as well as the numbers of deployed warheads. South Africa decided to dismantle its small nuclear weapons program, while Ukraine, Kazakhstan and Belarus worked cooperatively to transfer Soviet nuclear weapons out of their territories after the collapse of the Soviet Union. There has been no nuclear weapons use since 1945 and no transfer of nuclear weapons from one state to another.

While the Treaty has been largely successful at preventing proliferation, we are nevertheless at a challenging moment as we approach the Review Conference this spring. In addition to the challenges related to North Korea and Iran which I will speak to in greater detail shortly, there is growing frustration among non-nuclear weapon

states about the slow pace of nuclear disarmament and the seemingly dim prospects for further progress. Many non-nuclear weapon states increasingly question whether the five recognized nuclear weapon states are committed to holding up their end of the NPT bargain. Against this backdrop, it is more important than ever that the nuclear weapon states – led by the United States and Russia, which between them have over 90 percent of the world’s nuclear weapons – demonstrate a good-faith commitment to progress on disarmament. A necessary first step in this regard is for the United States and Russia to agree to extend the New START Treaty. Failing to do so would mean that, for the first time in nearly half a century, U.S. and Russian strategic nuclear forces would be entirely free of legal constraints – an outcome which would be bad for U.S. national security and would reinforce and deepen the polarization within the NPT community. The United States and Russia – and eventually other states, including China – should also commit themselves to beginning discussions urgently on further steps to reduce nuclear risks, including further reductions in nuclear arsenals.

Cases of Noncompliance: North Korea and Iran

In international relations terms, the NPT has been an overwhelming success story. However, some of the important exceptions are the subject of today’s hearing. The inability of the international community to date to prevent North Korea from acquiring and testing nuclear weapons and the means to deliver them is perhaps the biggest failure of the nonproliferation regime. North Korea began developing its nuclear program under the guise of peaceful purposes as a state party to the NPT and withdrew after NPT-mandated international safeguards inspections discovered undeclared activity related to plutonium. The North Korean case is a cautionary tale that it is always better to prevent a state from acquiring nuclear weapons through strong monitoring and verification measures than to try rolling back a fully developed nuclear weapons program.

This lesson was learned in the case of Iran, where the international community came together on the basis of the NPT to draw attention to Tehran’s undeclared nuclear activities, its nascent weapons program, and its lack of cooperation with the International Atomic Energy Agency (IAEA) to implement the safeguards required under the Treaty. It was only the combination of coordinated, multilateral economic sanctions and sustained diplomatic negotiations that succeeded in preventing Iran from acquiring a nuclear weapon. The NPT must continue to serve as the basis for efforts to maintain Iran’s status as a non-nuclear weapons state going forward.

First Priority – Preserve, Protect, and Continue Efforts to Universalize the NPT

What have these the cases of North Korea and Iran taught us about the effectiveness of the NPT, and what – if anything – is needed to strengthen the treaty to prevent future proliferation? To begin with, we must apply the Hippocratic Oath to the global nonproliferation regime – first, do no harm. The NPT has served as the key norm-setting device to rally the world around the treaty’s three key pillars – disarmament, nonproliferation, and peaceful uses of nuclear energy. Measures that would undermine

these three pillars would weaken the treaty itself and begin to destabilize the Treaty regime.

While universal adherence to the NPT is the ideal end state, the Treaty also serves as the legal hook for addressing cases of noncompliance. It is important to remember that questions about Iran's nuclear program had persisted for years. Only in 2002, when the IAEA began to focus its attention on evidence that Iran had secretly constructed a uranium enrichment facility at Natanz, did serious multilateral diplomatic efforts coupled with economic sanctions begin to gain traction to press Iran to take steps to allay international concerns about its compliance.

Similarly, as it became clear that North Korea had undertaken activities in violation of its NPT obligations even before its withdrawal from the Treaty, the United Nations Security Council ultimately had no choice but to impose strong international sanctions on Pyongyang to prevent outward proliferation and press the DPRK to denuclearize, including by returning to the NPT and to IAEA safeguards. Because the NPT violations were clear in both cases, states that would normally have opposed sanctions – including Russia and China – felt compelled to support and implement them.

Reinforcing and Strengthening IAEA Safeguards

The IAEA and its safeguards system remain essential components to preventing proliferation and facilitating the peaceful uses of nuclear energy, thereby upholding two of the three pillars of the NPT. The purpose of these safeguards is to ensure that non-nuclear weapon states that are pursuing nuclear energy for peaceful purposes are not diverting the know-how and materials to an illicit nuclear weapons program. The Agency's safeguards have proven durable in monitoring declared nuclear fuel cycle activities and stocks of nuclear materials under a Comprehensive Safeguards Agreement. The Model Additional Protocol (AP), a set of additional monitoring and verification measures developed to address the shortfalls identified in the safeguards system after the Persian Gulf war, has become the new standard for monitoring and verifying the absence of undeclared as well as declared nuclear activities in a state.

A key goal is to encourage all NPT parties to adopt the AP. The vast majority of IAEA member states now have an AP in place – in total, 136 states, along with Euratom. However, there remain states that do not have an AP, with a particular gap in AP adherence in the Middle East and North Africa. I note that Iran committed in the Joint Comprehensive Plan of Action (JCPOA) to implement the AP provisionally – which it is still doing – and to eventually ratify the AP. Other states in the region and beyond should move to sign, ratify and implement the AP.

IAEA member states should also undertake the commitment that Iran did in the JCPOA in a voluntary measure (Modified Code 3.1) to provide the IAEA with earlier notice that the state is planning to build a nuclear-related facility subject to safeguards. The Iran nuclear crisis was exacerbated in part by Tehran's adherence to the older version of code 3.1, which did not require notification to the IAEA until not later than 180 days *after* construction began on a new facility.

While the global community has made important progress in strengthening its ability to detect illicit nuclear-related activities, this process is not yet complete. More work remains to be done. Interestingly, the JCPOA incorporated several new, innovative detection and monitoring procedures that should be considered for broader application, even while recognizing that the JCPOA was not negotiated with the intention of setting a precedent for all IAEA Member States. This includes applying safeguards at earlier stages of the uranium production life cycle, such as at mines and mills, as well as conducting material accountancy for heavy water production. The IAEA may also be able to play an increased role in verifying the absence of “weaponization” activities that could contribute to a clandestine program to build a nuclear bomb.

Finally, the IAEA should continue to develop advanced technologies and data analysis techniques that can improve the implementation of safeguards and increase detection levels. The JCPOA incorporated some of these tools, such as the use of “active seals” and the deployment of the Online Enrichment Monitor to track in real time the level of enrichment at Iranian facilities. Additional research and investment in advanced technologies would help to tackle the challenge of detecting undeclared nuclear activities, including using wide-area environmental sampling, which may be increasingly realistic given innovations in sensors, imaging, and computer science.

Facilitating Peaceful Uses of Nuclear Energy

After disarmament and nonproliferation, the third part of the NPT bargain is the right to peaceful uses of nuclear energy. In addition to the IAEA safeguards system, export controls are a critical element of the nonproliferation regime in preventing certain dual-use equipment or technologies from being diverted to non-peaceful activities. In the past decade, the Nuclear Suppliers Group (NSG) has enhanced its controls over key fuel-cycle activities, including enrichment and reprocessing – and the NSG and other multilateral export control regimes should continue to review and update control lists. Certain key states – including China – should also work to improve export control enforcement on trade in dual-use activities. The UN Security Council has played an important role in establishing various “panels of experts” to provide critical information on export control and sanctions violations and improve enforcement of sanctions on North Korea and Iran. Future UN sanctions regimes should consider following this model.

The JCPOA incorporated a supplementary form of export controls through the establishment of a Procurement Channel that tracked any dual-use equipment or material bound for Iran. The deal required the approval of this channel, and potential review by the UN Security Council, before dual-use items could be transferred, as well as an ability to verify their end use in Iran. A similar type of channel could be incorporated into future arrangements, including any deal with North Korea.

Interest in nuclear energy remains high and growing in Northeast Asia and the Middle East, but these are also both regions divided by rivalries and security threats – including from North Korea and Iran. One option for balancing nonproliferation and peaceful

uses in these areas is to adopt some of the concepts from the JCPOA in order to ensure strict controls over enrichment and reprocessing, coupled with a much more expansive framework of intrusive monitoring and verification – including the Additional Protocol and time-limited IAEA access to undeclared facilities. Other options could incorporate regional, multinational fuel cycle facilities under shared ownership and regional arrangements for addressing spent nuclear fuel storage and disposition. The establishment of the IAEA Low Enriched Uranium bank in Kazakhstan offers a model for providing an assured supply of nuclear fuel to states concerned about interruptions in the nuclear fuel market.

Finally, international cooperation to dismantle nuclear facilities or convert them to solely peaceful uses could prove vital in cases like North Korea. The “Nunn-Lugar” model of Cooperative Threat Reduction (CTR) was central to helping the states of the former Soviet Union eliminate and reduce nuclear, chemical and biological weapons, materials, facilities and means of delivery, as well as addressing concerns about a “brain drain” that could have led to weapons of mass destruction (WMD) proliferation outside those states. Such a program in North Korea would facilitate the dismantlement of the DPRK’s nuclear and other WMD programs and incentivize North Korea to take those dismantlement steps in return for technical and economic assistance on denuclearization and WMD threat reduction activities and to help redirect human and technical resources to civilian economic development. The involvement of multiple countries in a CTR effort would enhance the sustainability of a denuclearization process in ways that would both provide reassurance to the DPRK and benefit the United States by sharing the economic and implementation burden among the most interested and capable partners, both in Northeast Asia and beyond.

Addressing Withdrawal Issues – Focusing on Article X

North Korea is the only state to have withdrawn from the NPT, and it did so after violating its NPT obligations by pursuing a clandestine nuclear weapons program outside of IAEA safeguards. The DPRK case highlights the importance of addressing the potential of abuse of the NPT’s withdrawal clause in Article X of the Treaty.

The P5 nuclear weapons states have found rare consensus around this issue, and it should continue to be pursued at the 2020 Review Conference. As experts like Pierre Goldschmidt and Robert Einhorn among others have noted, while the right of withdrawal is not going to be changed in the treaty, NPT states parties should make it clear that a withdrawing state would remain responsible for any violations it committed while still in the treaty. This could make the withdrawing state subject to international sanctions, limitations in nuclear cooperation, or other actions by the UN Security Council. Supplier states should include “fallback safeguards” requirements in their agreements for nuclear cooperation, so that even if a state leaves the NPT, any nuclear equipment, technology, or material supplied or produced through that cooperation should remain subject to IAEA safeguards. If the withdrawing state does not agree to these fallback safeguards, the supplier state should have a “right of return” of this equipment or material. If they cannot be returned, the withdrawing state should be

prohibited from using them.

Conclusion

The NPT has served the international community well for the past five decades in curbing the spread of nuclear weapons. The basic bargain of the treaty remains valid and vital – but the Iran and North Korea experiences have demonstrated there is a need to strengthen the treaty’s implementation and bolster its effectiveness, particularly in the areas of nonproliferation and peaceful uses. I appreciate the opportunity to provide my views to the subcommittees today, and I look forward to answering any questions.