

DISCUSSION PAPER: Next Steps on International Assurances

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Reflecting a Collaborative Effort to Develop International Assurances

The community of officials, experts and nuclear security practitioners have further defined, developed and delineated the concept of international assurance as one that contributes to nuclear security as a shared as well as sovereign responsibility. This paper reflects the collaborative and collective efforts to further evolve this contribution to global nuclear security and attempts to clarify current thinking on the definition of international assurance, why international assurances matter, how international assurances work, what is new about international assurances and how they can be provided and, finally, it raises for consideration questions about how best to implement international assurances efficiently with minimal duplication of effort and for maximal assurance benefit.

Taking the Next Step in Building Effective Global Nuclear Security

Measurable progress has been made in reducing the risk posed by vulnerable weapons-usable nuclear materials (highly enriched uranium and separated plutonium) over the past four years. The Nuclear Security Summits have facilitated significant progress in further elimination, minimization and securing of nuclear materials, strengthening the international legal architecture and improving the internal and cooperative capability of states in addressing the threat. A fundamental starting point was that Summit participants recognized the global nature of and global consequences associated with the risk of unauthorized access or theft of nuclear materials. States in possession of these materials have taken a variety of steps to provide greater accountability to internal constituencies for the security of these materials and to assure themselves that these materials within a state's jurisdiction will remain within the state's

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control. States without these materials have different responsibilities in the field of nuclear security. Their vital contributions come in the form of strengthening the international legal architecture, cooperating in efforts to combat illicit trafficking and in ensuring that their own territories do not become transit points, staging grounds or safe havens for terrorists or criminal networks.

Building on this progress, the next step in an effort to comprehensively address the threat could be for states to consider the equity that they, other states and even the public have in understanding that the nuclear security system in any given state that possesses these materials is operating effectively. Of critical importance is to develop mechanisms that will allow states to gain confidence about each other's security arrangements without compromising national security.

What Are International Assurances and Why Should They Matter?

From the outset, the concept of international assurance has benefited from a collaborative process enabling a diverse group of nuclear security officials, experts and practitioners to refine the proposed definition below of what international assurances are and are not.

Defining International Assurances

"International assurances" can be defined as:

Activities undertaken, information shared, or measures implemented voluntarily by a state or other stakeholders that can build the confidence of others (other governments, a designated international organization, the public, etc.) about the effectiveness of nuclear security within a given state.

International assurances can be provided while protecting sensitive information about materials and sites.

International assurances are:

- NOT requiring a treaty or convention
- NOT negative security assurances
- NOT disarmament
- NOT verification or inspections
- NOT disclosure of locations of nuclear material or sensitive specifics of security practices

It is proposed that assurances be implemented on a voluntary basis. There are, however, some ways of providing international assurance that make use of previously existing obligations that states have already undertaken (e.g., United Nations Security Council Resolution 1540 reporting and reporting required by States Party to the Convention on the Physical Protection of Nuclear Material). States can derive greater value from existing agreements and practices.

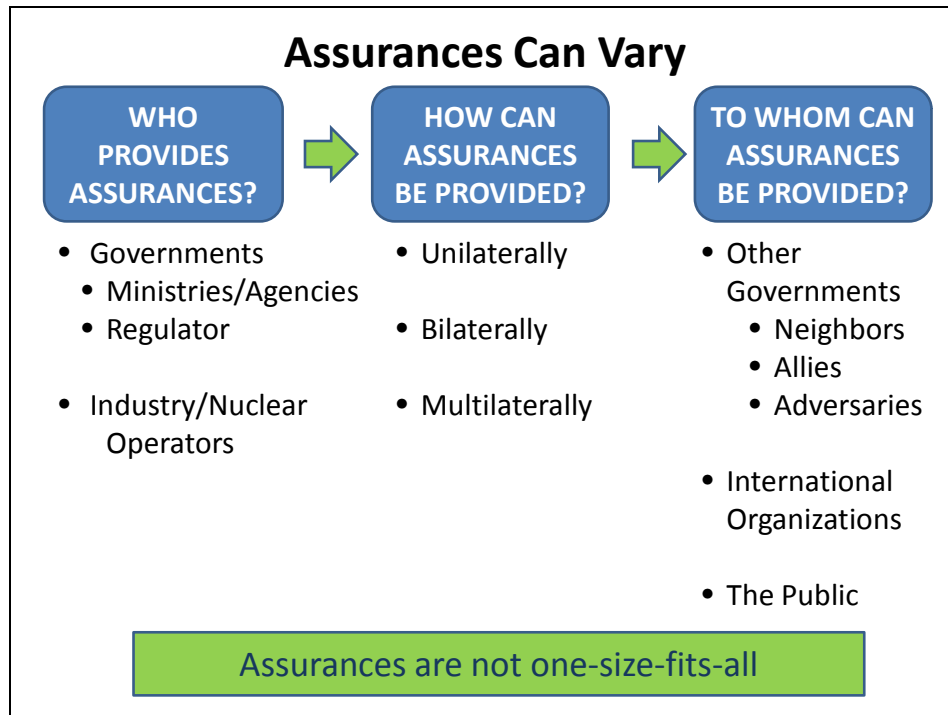
International assurance is not a new concept. “Assurance” mechanisms are widely used across many industries, including those involving sensitive information. These industries (nuclear safety, aviation, shipping, etc.) demonstrate that providing international assurances is not only possible, but actually commonplace.

Assurances are about security. Because the economic and security consequences of a nuclear catastrophe would be global in scope, all governments and the global public have an equity in how effective other governments are in meeting their security responsibilities. As a result, nuclear security is both a shared and sovereign responsibility. One way in which to responsibly discharge the shared responsibility for nuclear security is for states to take steps to assure others that they are discharging their sovereign responsibilities.

An added benefit is that for states participating in assurance mechanisms, their level of security practice is likely to rise. Different ways of providing assurance, such as sharing best practices, peer review and sharing information regarding legal and regulatory frameworks, can help all states improve. This is because a state must internally assure itself before it can assure others. Sufficient internal assurance and accountability mechanisms could facilitate the ability of a state to provide international assurances that all of its nuclear materials and facilities are secure. Such assurances are about building confidence in the effectiveness of a state’s security system with other governments and the public, rather than making a guarantee about specific behaviors. Assurances by providing insights into system weaknesses in advance can ultimately help states determine whether the global system is working effectively.

How Do Assurances Work?

Assurances can vary in who provides them, how they are provided and who is the beneficiary of the assurances.



Assurances can be provided by those engaged in assurance activities and information sharing such as ministries and agencies from the government and the regulator as well as nuclear industry. Assurances can be provided in a variety of ways; unilaterally (such as publishing an annual report on nuclear security), bilaterally (such as engaging in nuclear security cooperative measures with another state) or multilaterally (such as best practice exchanges).

Who benefits from assurances? In short, we all do. There are other governments such as neighbors, allies and adversaries that can be assured or international organizations such as the United Nations or the International Atomic Energy Agency (IAEA). Finally, the public may also benefit, for instance, by becoming more informed and gaining confidence that a sufficient legal and regulatory structure is in place when regulations or annual reports are published.

International assurance is not a one-size-fits-all concept. Therefore, a state could have a range of options taking into account its circumstances, the ways in which it uses nuclear materials and its ability to internally assure itself. Assurances can apply to materials and facilities in both civilian and non-civilian use. The foundation for international assurances already exists and some states are already able to provide assurances to others about the effectiveness of their nuclear security systems.

A Menu of Potential International Assurances

There are a variety of ways by which a state can voluntarily assure others about the effectiveness of its nuclear security system while protecting sensitive information about materials and sites. From ongoing discussions to develop the international assurance concept, below are eight categories of illustrative international assurances followed by details of what each category could include:

- Information Sharing and Reporting
- Peer Review
- Expanded Best Practice Sharing
- Bilateral Cooperative Measures
- Declarations
- Accounting
- Training
- Certification

Information Sharing and Reporting:

Many states already engage in some form of international assurance by publishing either annual reports on nuclear security or details of their nuclear security regulations. Public release of these official documents increases confidence that the basic legal and regulatory framework required for nuclear security may be in place within a state.

In addition, there are two mechanisms where states could use existing obligations to provide assurance. First, through United Nations Security Council Resolution (UNSCR) 1540, each state is to provide reporting on nuclear security-related issues, in particular, the steps a state has taken or plans to take to implement its obligations for “appropriate and effective” nuclear security measures. A state could choose to make its UNSCR 1540 report and matrix (developed by the UNSCR 1540 Committee) available to the public. Second, all States Party to the Convention on the Physical Protection of Nuclear Material (CPPNM) (and its 2005 Amendment when in force) have, through Article 14, 1 committed to inform the depositary, in this case the IAEA, of the laws and regulations that give effect to the CPPNM. The assurance comes from the IAEA communicating “such information periodically to all States Party” as specified in Article 14, 1. The procedures for doing so, however, have yet to be specified.

Peer Review:

Peer review is an evaluation of processes or practices that uses the independence of the reviewers to make an impartial assessment of current arrangements and recommendations for improvement. States can request a peer review of their nuclear security arrangements from the IAEA through its International Physical Protection Advisory Service (IPPAS) missions. The purpose of an IPPAS mission is to provide recommendations to requesting states on ways to strengthen their nuclear security systems (including legal and regulatory systems) and assess whether these systems comply with existing treaties and IAEA guidelines (IPPAS missions also visit at least one facility). By hosting an IPPAS mission, a state demonstrates a commitment to strengthening its nuclear security through external review, which in turn builds international confidence in its nuclear security system. A state can help other governments and stakeholders build their confidence about its nuclear security practices by publishing the results of the IPPAS mission report (redacted for sensitive information), reporting on steps taken to respond to IPPAS recommendations for improvements and by requesting a follow-up mission within a reasonable period of time. Further expanding the capacity for peer review in the nuclear security field, the World Institute for Nuclear Security (WINS) provides peer review services, which can be directly requested by nuclear operators, of corporate governance and

management practices as they relate to nuclear security.

Expanded Best Practice Sharing:

WINS, an international organization devoted to the development, exchange, and promulgation of nuclear security best practices, offers a series of best practice guides on a wide range of topics and conducts workshops to gather and disseminate best practices. Through these activities, WINS creates a community of practice, which currently includes over 1200 members from 63 countries, for ongoing engagement of nuclear security professionals. Other mechanisms also exist for best practice sharing such as peer reviews offered by the IAEA. All relevant nuclear security professionals could be encouraged to participate in WINS and other workshops and training that facilitate the identification and sharing of best practices.

Bilateral Cooperative Measures:

States can cooperate bilaterally in providing nuclear security assurances to one another. One existing, but potentially underused, international assurance mechanism is based on the physical protection requirements in nuclear cooperation agreements or as part of export agreements instituted by several states such as the United States, Canada, Australia, and EURATOM countries when engaging in nuclear commerce. The United States, for instance, visits partner countries to observe the physical protection systems in place for the protection of U.S. origin nuclear material.

U.S.-Russian threat reduction cooperation programs demonstrate both the value of bilateral mechanisms to improve security and build confidence, and that nuclear security cooperation at sensitive sites and with sensitive materials is possible without compromising sensitive information. Russia and the United States are in a unique position to encourage other states to take part in similar arrangements and share their experience cooperating together.

Declarations and Accounting:

Knowing how much nuclear material exists and that it is being appropriately accounted for is

another way by which to develop confidence about nuclear security systems. Declarations about quantities of material (e.g., Annual Reports, INFCIRC/549, historical production, etc.) or, at a minimum, demonstrating that a regular accounting/auditing process with respect to these materials takes place, without divulging sensitive details, are steps to consider for all materials. Such declarations or demonstrations could help with others developing a level of confidence that material is accounted for and could also encourage the sharing of best practices for accounting.

Training and Certification:

Nuclear security training helps states and operators ensure that personnel with nuclear security responsibilities can competently discharge their responsibilities. Training can be provided by government entities, nuclear industry, the IAEA, WINS, Centers of Excellence and Nuclear Security Support Centers. In 2009, the IAEA created the International Network for Nuclear Security Training and Support Centers (NSSC) to encourage collaboration and coordination of training initiatives. The IAEA provides training that helps nuclear security professionals apply IAEA nuclear security recommendations and guidance across national responsibilities for nuclear security. WINS also provides trainings through workshops on the topics of its best practice guides. The recent establishment of Centers of Excellence and Nuclear Security Support Centers provides increased capacity for trainings in the nuclear security field. Trainings are an example of how other stakeholders, and not just the state, can provide international assurance.

Institutions within states can be certified for providing nuclear security-relevant training. The WINS Academy is piloting corporate governance certification for institutions to provide training for professionals with nuclear security responsibilities. Such activities can help build confidence that security professionals have participated in standardized training programs. As of yet, however, programs to certify nuclear security professionals have not been created.

The development of a certification program to assure that nuclear security professionals have all participated in internationally recognized training programs could also raise confidence in the security of all materials under their purview, both in civilian and non-civilian use. States

could require such certification of the contractors employed to protect such sites. Other kinds of certification efforts could be supported by the IAEA, WINS, trade groups or other professional security organizations.

What Is New about Assurances?

A review of the options in the previous section for providing assurances shows that in most cases the activity is not new (meaning that it is already practiced or engaged in by states or relevant stakeholders in some form; in some cases where a “yes” is indicated below, the activity has been recently created, is in development, or does not exist). Many of these activities are already being performed by states or are already required by pre-existing agreements (though they may have been designed with other purposes in mind). What is needed to strengthen confidence in the effectiveness of the global nuclear security system, however, is for these activities to be enhanced, conducted on a more regular basis by more states and for more information about these activities to be shared. In addition, some work needs to be done to strengthen or create implementation pathways for some of the assurance options.

The following chart summarizes what new actions or activities states could consider implementing to create a voluntary assurance program both nationally and internationally. In effect, it outlines the work plan to further:

- **Share information** (while protecting that which is sensitive);
- **Broaden participation** (encourage more states to participate in key activities);
- **Regularize** (make the activity more frequent and part of common practice);
- **Enhance** (make existing actions or activities more effective and ensure greater rigor);
- **Create implementation architecture** (the activity may not be new, but doing it for the purpose of assuring others may require: a new means of conducting the activity or sharing the results; or additional financial or human resources).

INTERNATIONAL ASSURANCE	IS THE ACTIVITY NEW?	SHARE INFO	BROADEN PARTICIPATION	REGULARIZE	ENHANCE	IMPLEMENTATION ARCHITECTURE NEEDED?
INFORMATION SHARING AND REPORTING						
• CPPNM Article 14, 1 Report	NO	✓	✓	✓	✓	YES
• UNSCR 1540 Report	NO	✓	✓		✓	NO
• Publish broad outlines of regulations / annual report	NO	✓	✓	✓	✓	NO
PEER REVIEW						
• Request/host IPPAS peer review	NO	✓	✓	✓	✓	YES
• Request/host corporate governance peer review	YES	✓		✓		NO
EXPANDED BEST PRACTICE SHARING						
• Participate in WINS best practice sharing	NO	✓	✓	✓		NO
• Best practice exchanges bilaterally or multilaterally among states with similar facilities or materials	NO	✓	✓	✓		NO
• Table top exercises	NO	✓	✓			NO
BILATERAL COOPERATIVE MEASURES						
• Assurances through nuclear cooperation agreements	NO	✓	✓			NO
• Bilateral nuclear security assistance	NO	✓	✓			NO

INTERNATIONAL ASSURANCE	IS THE ACTIVITY NEW?	SHARE INFO	BROADEN PARTICIPATION	REGULARIZE	ENHANCE	IMPLEMENTATION ARCHITECTURE NEEDED?
DECLARATIONS						
<ul style="list-style-type: none"> Provide regular declarations about quantities of materials 	NO	✓	✓	✓		TBD
ACCOUNTING						
<ul style="list-style-type: none"> Report on a regular accounting or audit process 	NO	✓	✓	✓		TBD
TRAINING						
<ul style="list-style-type: none"> Nuclear Security Support Centers/Centers of Excellence 	NO	✓	✓	✓	✓	YES
CERTIFICATION						
<ul style="list-style-type: none"> Corporate governance certification (WINS Academy) 	YES	✓	✓	✓	✓	NO
<ul style="list-style-type: none"> Other certification 	YES	✓	✓			YES

Implementing International Assurances

For many of the assurance options described above, the implementation architecture already exists, although it may need to be strengthened to support a more ambitious level of assurance participation and information sharing in the future. In some cases, implementation architecture will need to be developed to ensure the assurance operates fully.

Outlined below are some proposed principles for guiding the implementation process and an implementation work plan for states to consider for closing gaps in the existing architecture for the eight categories of voluntary assurance.

PROPOSED PRINCIPLES FOR GUIDING IMPLEMENTATION	ILLUSTRATIVE EXAMPLES
Use existing implementation architecture (e.g., IAEA, UN, WINS, etc.) where possible, and strengthen this capacity as necessary. Work to harmonize and/or integrate similar pre-existing requirements to avoid duplication of effort and minimize costs.	<ul style="list-style-type: none"> • IPPAS • UNSCR 1540 • CPPNM Article 14,1
Build new architecture into existing institutions or platforms wherever possible.	<ul style="list-style-type: none"> • Expand WINS Academy offering to develop certification of nuclear security professionals.
Develop new platforms only when existing institutions cannot fill the gap.	TBD
For bilateral or ad hoc assurances, defer to participating states to design their own implementation mechanisms.	TBD
Others?	TBD

Achieving the goal of building confidence in the effectiveness of the global nuclear security system requires a plan of work for how to implement specific assurance mechanisms. A proposed next step is to convene a few working groups and have them: identify high value categories of international assurance activities and actions to pilot for implementation; determine how to close the gaps identified for these selected activities and actions to ensure the international assurance mechanism operates effectively and for maximum benefit; and identify what steps a state needs to take to provide international assurance. Identifying assurance options that are already in practice today, but should initially be broadened in participation or regularized, may be one way to select which categories to focus on for piloting implementation (e.g., Peer Review, Information Sharing and Reporting, Expanded Best Practice). For whatever combination of assurance categories selected, with actions from states individually to provide assurances and collectively to ensure that missing implementation architecture is put in place, international assurance continues to be an achievable and worthwhile goal that is within reach.