The Urgent Need for a Seoul Declaration: A Road Map for the 2012 Nuclear Security Summit and Beyond

- Arms Control Today

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- Including North Korea in Nuclear Security Summits

The April 2010 nuclear security summit in Washington raised the international profile of the threat of nuclear terrorism and focused attention on the need to better secure all weapons-usable nuclear materials in all corners of the globe. It will be followed by another summit in 2012 in Seoul, a decision that has set the stage for what could become a very important, biennial, high-level international political event.

Because they are attended by heads of state, these biennial summits have the potential to become the pre-eminent international forum where the state of global nuclear material security is evaluated and where new commitments are made to improve the world's defenses against nuclear terrorism. They could become the nuclear security equivalent of what the UN climate change conference process is for transnational environmental challenges and what the Group of Eight (G-8) and Group of 20 (G-20) meetings are for global financial issues. To achieve this status, however, the nuclear security summit process needs to evolve, and participating counties need to be willing to accept changes that will strengthen the nuclear material security regime.

The lead-up to the 2012 summit provides an opportunity to begin this evolutionary process. The Washington summit solidified and underscored the key elements of the current nuclear material security regime, including UN Security Council resolutions, international agreements, and the role of the International Atomic Energy Agency (IAEA). The South Korean summit can build on the success of its predecessor by moving beyond the current elements of the regime and endorsing some key new policy initiatives as part of a "Seoul Declaration" package.

This type of a declaration would utilize the inherent action-forcing value of the summit process, set a precedent for achieving further improvements over time at subsequent summits, and position South Korea as a global leader in the nuclear material security field. In particular, because South Korea is a contributor to the G-8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction and a member of the G-20, it can serve as a bridge between these groups on this issue, encouraging contributions and action from the G-20 on global nuclear security priorities.

Some of the new policy initiatives for the Seoul summit could be prepared for implementation in the short term, and others would require further evaluation and development in order to be implemented at future summits. This additional work could be carried out by empowering a technical expert process at the Seoul summit that would complement the political "Sherpa" process that currently shapes and guides the summits. (A Sherpa is the representative of a government who leads its preparation for an event such as the nuclear security summit.) The current summit Sherpas are generally representatives of the foreign ministries of participating governments and not necessarily deeply knowledgeable about the technical aspects of nuclear material security practices and challenges.

If the Seoul summit could start the policy evolution process and if this step could be continued in subsequent summits, it would help strengthen and expand the existing nuclear and radiological

material security regime significantly. This summit process then should be supplemented and coordinated with the related efforts of the G-8 and G-20, the IAEA, and the other national and multilateral programs and initiatives that are focused on the challenge of preventing nuclear terrorism. Therefore, it is important that the summit events not be viewed as an end in themselves, but rather as a facilitating mechanism for the journey toward a modern, stronger, more flexible, and responsive 21st-century nuclear material security architecture.

Acknowledging the Threat

One of the significant challenges in maintaining nuclear material security as a high global priority is that a number of nations do not see nuclear terrorism as a real threat. The Washington summit tackled this issue in its communiqué, in which all 47 participating countries agreed that "[n]uclear terrorism is one of the most challenging threats to international security."

However, there is still skepticism in some governments. One issue is a belief that building even a crude nuclear weapon is beyond the capability of most terrorist groups. Also, virtually every country possessing fissile materials is reluctant to acknowledge that its security procedures may have shortcomings that could be exploited by terrorists.

A number of U.S. blue-ribbon commissions and analyses have underscored the threat of nuclear terrorism.[1] The cables that were released by WikiLeaks in late 2010 indicate that other countries beyond the United States and its NATO allies are concerned about this threat.[2] The root of the threat is the very large and still growing stockpile of weapons-usable fissile material around the globe. Rough estimates put it at 1,600 metric tons of highly enriched uranium (HEU) and 500 metric tons of plutonium.[3] About one-half of the world's fissile material is in military stockpiles; the remaining 50 percent is in civilian stockpiles. The exact amount of this material is not known with any precision; the margin of error on the estimates is as much as 300 metric tons for HEU and as much as 25 metric tons for plutonium.[4] Even with the imprecise estimates, it is clear that there is enough material for 100,000 to 150,000 nuclear weapons today.[5]

The HEU has prompted particular concern because it is used in a number of nonmilitary applications, and a crude HEU gun-type device is considered to be the type of nuclear weapon most accessible to terrorists.[6] It is estimated that it would take 40-50 kilograms of HEU to make such a device.[7] However, it likely would be large and heavy, and creating it would require some basic infrastructure support, such as a machining capability. A plutonium device is much more difficult to develop without a more sophisticated technical infrastructure and experts, and terrorists likely would need more technical assistance with this type of a weapon.

Nuclear smuggling is another window into the threat and its reality. According to the IAEA, there have been 1,600 cases of illicit nuclear trafficking since 1993.[8] There have been 18 cases of the theft or loss of HEU or plutonium. None of the HEU that was recovered was reported missing from the facility from which it disappeared. Recently, there have been three cases of holding radiological sources for ransom.

Irrespective of the possession of fissile materials, virtually every country possesses and uses radiological sources for industrial and medical purposes. Some of these sources are very high intensity. Radiological terrorism is considered to be a higher-probability event than a nuclear attack.[9] Radiological devices do not result in nuclear explosions, but they do spread toxic radioactive materials. A radiological attack is much less sophisticated than a nuclear terrorist attack and would cause much less physical damage, but its impact on the global economy could be very significant depending on the location. There is a significant problem with the security of radiological sources around the world. The IAEA estimates that there are 100,000 to 1 million radiological sources around the globe, but no one knows for sure.

In the wake of the nuclear emergency that occurred in Japan, it is important to recognize that nuclear crises can erupt without warning, generate devastating results, and carry extremely high price tags. In the case of nuclear terrorism, the cost of the damage and response would dwarf the price of prevention. It would be very sobering if, at the next nuclear summit, an analysis of this cost was provided to the assembled nations. It likely would have a dramatic impact on developed and

developing nations.

Nuclear Material Security

Despite the agreement at the Washington summit on the importance of nuclear material security, there still seems to be some lingering confusion in the international community about what nuclear material security actually is and how it relates to other nuclear power, nonproliferation, and arms control objectives.

Nuclear material security involves the accounting of plutonium and HEU and the protection of those materials against theft or diversion to use by terrorists, other nonstate actors, and non-nuclear-weapon states. By comparison, the nuclear Nonproliferation Treaty (NPT) and the nonproliferation regime are concerned with preventing the spread of nuclear weapons to new states, primarily through the diversion of nuclear materials or the clandestine use of an existing nuclear infrastructure by a state for weapons purposes. The IAEA safeguards program is the primary way that compliance with the NPT is monitored.

Because nuclear material security is widely considered to be the responsibility of the country that possesses the materials, and these materials are considered to be sensitive, a number of international agreements, national regulations and laws, and nonbinding recommendations are applicable in this area and constitute the foundation of the current regime. One result of this disaggregated approach, however, is that there are no standardized international rules governing nuclear material security, and each country creates its own system.

A Seoul Declaration

Two very important decisions need to be made at the outset of the planning for the South Korean summit: What will be the scope of that event, and how will the summit expand the nuclear material security regime beyond its current limits? In December, the Korean government gave some indication of the issues that it was interested in seeing addressed. These included a progress report on implementing the Washington summit commitments, developing HEU management guidelines, enhancing security culture, countering nuclear smuggling, strengthening nuclear forensics cooperation, and securing radioactive materials.[10] The issues of enhancing transportation security and information sharing and security may be added to this list. There also is the very sensitive issue of how to address the issue of North Korea in the context of the Seoul summit (see box).

Recently, the Japanese nuclear crisis has created pressure to add nuclear safety to the agenda. This issue, and its relationship to the future of nuclear power, could obscure the unique focus of the summit on nuclear material security unless it is used to advance the security agenda. One important step is to follow the example of the European Union, which recently agreed to conduct voluntary “stress tests” to assess the safety of the 143 nuclear reactors in EU countries. The tests will be conducted by national regulators based on agreed upon criteria, and the results will be made public. This is an important precedent that overcomes concerns about borders and sovereignty to ensure that there is uniformity in EU safety procedures and technology.

Nuclear security summit participants could agree in advance of the Seoul meeting to perform similar stress tests for nuclear material security based on agreed upon criteria, and participating countries could report back on the results at the summit. Alternatively, the summit attendees could agree at the summit to perform these stress tests and then report back after the meeting. In either case, any deficiencies found should be identified and corrected immediately. This process will significantly strengthen the state of global nuclear material security.

The South Korean government has established an interministerial preparatory committee headed by Prime Minister Kim Hwang-sik to organize the summit and has opened a preparatory office led by Foreign Minister Kim Sung-hwan to oversee general planning, management and protocol for the event.[11] There also seems to be movement toward the creation of an advisory committee that would include representatives from leading South Korean think tanks. As presently envisioned, the Seoul summit would be anchored by the government summit, but as in last year’s event in Washington, there would be two satellite events—one for the nuclear energy industry and the other

for nongovernmental and academic experts.

As South Korean officials and their counterparts from other countries discuss the upcoming summit, they should consider how to build the summit process into a strong and lasting initiative that will serve global nuclear security objectives. All the new proposals for the Seoul summit that have been identified are important. In keeping with the current regime, however, they are discrete elements without a connecting thread; one goal of the Seoul summit should be to tie them together by articulating more-encompassing themes. The participating governments have the opportunity to endorse these themes and to package them as part of a Seoul Declaration[12] that will be a concrete step toward a 21st-century nuclear material security architecture.

This declaration could include six key issue areas that are interrelated and mutually reinforcing. If actions were implemented under each of them, they would significantly improve the global security of nuclear and radiological materials.

Track commitment implementation. The participants in the Washington summit made more than 50 commitments. Although virtually all the pledges were nonbinding, the participants did agree to make best efforts to implement them. Tracking the implementation of these commitments is an important effort that could be reported on at the Seoul summit. There is some controversy among the summit participants on how transparent this reporting should be. Making all of this information public would be valuable, but it may be easier to share some information behind the scenes.

By the 2012 summit, it is unlikely that all countries will have implemented all commitments. Even the United States probably will not achieve that goal. In particular, Washington is not likely to fulfill its pledge to ratify an amendment to the Convention on the Physical Protection of Nuclear Material before the Seoul summit. (The amendment would extend and strengthen the convention’s physical protection requirements by including materials in storage or use at domestic nuclear facilities as well as materials in transit.) Some of the other commitments, such as ending the use of HEU in civil applications in the countries utilizing it for this purpose, have long lead times.

The South Korean summit could announce the establishment of some type of a transparent display, such as a Web site, that allows the public to assess progress. Such a step is essential to maintaining the credibility of the summit process.

Strengthen the regime. Although there seems to be some international fatigue with the current set of nuclear material security activities, this is partly because of the large number of initiatives undertaken in the past 15 years. These efforts were developed as the opportunity or need presented itself, rather than as part of a rational planning process. Now, the threat has been validated, the gaps in the existing regime identified, and the need to harmonize and strengthen the current unwieldy system demonstrated.

In addition to nuclear material security stress tests, one step that the South Korean summit could take is recognizing that the Obama administration’s four-year objective to secure all vulnerable nuclear material around the globe was an important motivator of international action but that the goal is unlikely to be accomplished by 2013. There is even a danger in strictly hewing to this goal because it conveys the sense that this mission requires only four years when it in fact is a lifetime objective. The security of nuclear materials must evolve and be strengthened as long as these materials exist. That should be one key statement in the 2012 communiqué.

Another step is to organize some of the new ideas that have been put forth in the Sherpa process for strengthening the regime. These ideas could include developing HEU management guidelines, countering nuclear smuggling, strengthening nuclear forensics cooperation, and enhancing transportation security.

A third step is to consider endorsing the development of a nuclear material security architecture that will provide cohesion and a driving force. The current nuclear and radiological material security regime does not have an essential organizing document. One proposal is to package the current regime and new initiatives in an international framework agreement. A nuclear material security framework agreement would identify the threats to humankind from vulnerable fissile and

radiological materials, especially the threats posed by terrorists, and list actions and commitments required to mitigate them. It especially would allow the subject to be acknowledged at a very high political level as a global priority and then require the adherents to take specific steps to achieve the agreement's objectives.

This could streamline the existing components of the regime and allow new initiatives to be folded into the agreement over time. It would alleviate some of the overlapping meeting and reporting burdens that are currently placed on governments by the broad spectrum of existing programs.

This type of agreement may run into serious opposition because of bureaucratic resistance or concerns that it could turn into a never-ending multilateral negotiation. Nevertheless, rationalizing the current regime should be a priority at future summits and should be included as an objective in the next communiqué. It also could authorize a small diplomatic working group to prepare a recommendation for the following summit or focus the development process on a coalition of those countries committed to the framework proposal.

Standardize nuclear material security. Each country protects its nuclear materials differently. The IAEA provides detailed technical recommendations for the securing of nuclear facilities, domestic regulations are developed and approved by individual nations, and international conventions provide norms for nuclear material protection, although not all have been approved by all countries. Even with these interrelated guidelines, no universal standard exists for securing nuclear materials and weapons.

There are reasons that the nuclear material security system is not standardized, including sovereignty and national security concerns, but the question is whether these motives outweigh the danger. The need for more-standardized methods to implement nuclear material security and to judge its effectiveness is an important issue that merits further examination in advance of the next summit.

The establishment of these standards would eliminate gaps in implementation and help to ensure accurate assessments of security across borders. These standards could include performance-based and security-specific criteria[13] as well as suggestions for regulations. However, they would have to be constructed carefully so they do not conflict with national laws and regulations or undermine the legitimacy of the security recommendations provided by the IAEA, including the recently revised Information Circular on the physical protection of nuclear material.[14]

Discussions are taking place inside and outside the IAEA on the subject of nuclear security standards, but there are differing views that are not easy to reconcile. Development of a baseline standard is almost certainly too controversial to be completed before the 2012 summit. Yet, the summit communiqué could endorse the objective of creating a baseline standard and then task a technical working group with convening the discussions and performing the assessments that will be needed to begin the process of moving countries toward a unified standard by a possible 2014 summit or perhaps even beyond that date.

Fund global nuclear security. The United States currently spends about $1.5 billion per year on international nuclear material security efforts, including physical improvements to storage facilities, removals of material, and prevention of nuclear smuggling. These activities are supplemented by the Global Partnership, which has more than 20 G-8 and non-G-8 contributors, including South Korea. At present, however, the partnership is funding activities only in Russia and Ukraine; most of those activities deal with chemical weapons destruction, submarine dismantlement, and nuclear safety.

The U.S. programs and those funded by the Global Partnership currently face a budget backlash. In the United States, ballooning deficits have caused Congress to consider cutting the programs by more than $300 million from the budget proposed for 2011 by the president. In addition, just weeks after the Washington nuclear security summit, the proposed extension of the Global Partnership for another 10 years and its expansion to other globally focused missions was delayed, primarily because of economic turmoil in Europe. The Global Partnership's future activities now are under discussion by a group of experts from G-8 countries. It seems that they are considering approving an extension of the Global Partnership without requiring any substantial new funding.

Both of these efforts are important and should be continued, but they may need to be better harmonized and include contributions from new countries, including those from the G-20, to maintain strong and broad international political support. One new initiative that the participants in the South Korean summit could take is to endorse a robust and enduring Global Nuclear Security Fund. The fund should total $2.5-3.0 billion per year for all weapons of mass destruction-related efforts over the next 10 years, with roughly 75 percent ($1.9-2.3 billion per year) of that devoted to nuclear security activities.

If the United States continues its current yearly contributions of about $1.5 billion in this area, the remaining contribution for nuclear security required from all other countries would be $400-800 million per year. As objectives are accomplished, the overall amount needed would be reduced.

In addition to endorsing this integrated fund, the 2012 summit communiqué should identify specific objectives to be achieved by the following summit. One target should be the IAEA Nuclear Security Fund, with the goal of doubling its annual budget from about $25 million to $50 million. That would allow this IAEA office to upgrade its efforts to assist countries in improving the security of all nuclear and radiological materials. The communiqué also should support the implementation of UN Security Council Resolution 1540, which has a broad and important mandate but few resources to command compliance.[15] Also, to entice broader participation in the global fund, the cost of a country's domestic nuclear security improvements above its current standards should be counted as part of that country's donation to the fund.

The creation of this fund would need to be coordinated with the Global Partnership countries, but by making it a global fund with new contributors and rules, it could overcome some of the current donor fatigue that exists in some G-8 countries.

Secure radiological sources. The issue of radiological material security was not afforded a high priority at the Washington summit. Although the communiqué and the work plan made reference to the issue, several counties would have liked to have placed higher priority on this work. Comments by the South Korean government clearly indicate it is interested in raising the profile of this issue.

The upcoming summit could endorse several actions in this area, beginning with an international commitment to secure all high-intensity radiological sources in public buildings with an immediate focus on major metropolitan hospitals. The United States should take the lead by announcing that it will secure all radiological sources in such hospitals before a potential 2014 summit. This would include about 500 buildings at a cost of approximately $125 million.[16] The summit also could endorse the establishment of regional radiological zones of security, where the countries in the region work together to ensure the security of radiological sources. Initial work could be done on the Korean peninsula or in the Middle East. All these activities, which could be financed through the Global Nuclear Security Fund, would demonstrate the unique value of the nuclear security summit process.

Enhance technical and educational engagement. At the summit, participants could take several steps to address the human element of nuclear material security.

The first is the promotion of best practices, education, and security culture. The Washington summit communiqué and work plan placed a significant emphasis on these subjects, and some actions have been taken to date.[17] For example, China, India, Japan, and South Korea have created or are in the process of establishing centers of nuclear security excellence where best practices can be shared. Also, at least a half-dozen workshops on issues including nuclear forensics, guard force improvement training, and detection of and response to nuclear smuggling have been held around the world. In addition, France and Italy have incorporated nuclear security education into their academic curricula. Much more can be done in these areas and others, and the 2012 summit communiqué should identify specific countries that intend to host meetings, workshops, and trainings.

A second goal should be the establishment of a multilateral technical working group that would complement the current Sherpa process. This group could work through the details of issues that the South Korean summit endorses but that would not be ready for implementation before a 2014

summit. These could include nuclear and radiological security standards and elimination of civil HEU. This group could provide reports on progress to the periodic Sherpa meetings and allow that political body to help resolve difficulties that may arise in the technical discussions. The establishment of a technical working group would provide a mechanism for moving some essential but complex issues forward between summits.

The third objective is better partnering among government, industry, and nongovernmental organizations (NGOs). Government, civil society, and the private sector all play important roles in responding to 21st-century nuclear proliferation threats, and each sector offers a vital contribution the others lack. These key stakeholder groups need to be brought into more regular contact as part of a new, multidisciplinary nuclear material security "Iron Triangle." The NGO and industry events that took place around the 2010 summit are examples of how this conceptual triangle is beginning to take a concrete form. The goal would be to exchange ideas among the key stakeholders and to plan and implement common or mutually reinforcing policies, events, and actions. The Seoul summit communiqué should encourage a deeper dialogue among these parties between the 2012 and 2014 summits by establishing a government-industry-NGO conference against nuclear weapons proliferation that could meet periodically between summits.[18]

Conclusion

The nuclear security summit process is a new and unique opportunity to begin to build a stronger 21st-century nuclear material security architecture. The Washington summit was a watershed event. The decision to continue the summit process in 2012, and possibly beyond, creates the opportunity to extend these meetings into a policy-building process that should be utilized to the maximum extent possible.

As a first step, there should be a decision to continue the summit process until significant improvements beyond the scope of the current nuclear material security regime are implemented. The Washington summit initiated a very important and high-level political process that did not exist before, and continuing it can exert useful pressure on bureaucracies to deliver results. The summit forum also offers an opportunity for making progress on a scale that otherwise would not exist because of the large number of countries involved and the attendance by national leaders.

A second priority is to use the 2012 summit to begin to reframe the nuclear material security debate and to initiate some key changes in strategy and policy. Each summit needs to be viewed as a chance to strengthen and improve the nuclear material security regime further beyond its current limits. The Seoul summit and whatever comes after it will allow for a package of ideas and activities to be placed before at least 47 leaders for approval by all at the same time. That is an unparalleled opening.

Finally, South Korea is an important choice for the second summit because of its unique position as a significant domestic consumer of nuclear energy, a rising exporter of nuclear technology, a member of the G-20 and contributor to the Global Partnership, and a non-nuclear-weapon state with a nuclear-armed state on its border. The 2012 summit provides South Korea with the opportunity and the imperative to seize international leadership in improving the security of nuclear and radiological materials. This can be done most effectively by creating a Seoul Declaration for the 2012 summit.

If successfully initiated and implemented, the declaration can significantly improve the security of nuclear and radiological materials worldwide and create a much stronger barrier against nuclear terrorism over time. This should be the primary objective of the nuclear security summits.

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ENDNOTES

1. See, for example, National Commission on Terrorist Attacks Upon the United States, "The 9/11 Commission Report," July 22, 2004, http://govinfo.library.unt.edu/911/report/index.htm; Commission

on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism, “World at Risk,” December 2008, www.preventwmd.com/report.

2. Heidi Blake and Christopher Hope, “WikiLeaks: Al-Qaeda ‘Is Planning a Dirty Bomb,” Telegraph, February 2, 2011.

3. International Panel on Fissile Materials, “Global Fissile Material Report 2009: A Path to Nuclear Disarmament,” p. 8, www.fissilematerials.org/ipfm/site_down/gfmr09.pdf.

4. Ibid., p. 8.

5. Ibid., pp. 8-20.

6. Matthew Bunn, “Securing the Bomb 2010: Securing All Nuclear Materials in Four Years,” BelferCenter for Science and International Affairs, April 2010, p. 16, www.nti.org/e_research/Securing_The_Bomb_2010.pdf.

7. Union of Concerned Scientists, “Weapon Material Basics,” August 17, 2004, www.ucsusa.org/nuclear_weapons_and_global_security/nuclear_terrorism/technical_issues/fissile-materials-basics.html.

8. Tim Andrews, “Strengthening Global Nuclear Security: The Role of the IAEA” (presentation to the Nuclear Security Conference, King’s College London, February 18, 2010).

9. “Radiological Terrorism Tutorial,” Nuclear Threat Initiative, 2004, www.nti.org/h_learnmore/radtutorial/chapter01_02.html.

10. Cho Hyun, “Preparation for Nuclear Security Summit 2012 and Possible Deliverables” (presentation at the 9th ROK-UN Conference on Disarmament and Non-Proliferation Issues, Jeju, December 3, 2010).

11. Martin Matishak, “Next Nuclear Security Summit Could Take on Radiological Threat,” Global Security Newswire, March 18, 2011.

12. The concept of a Seoul Declaration was developed by the Partnership for Global Security in collaboration with staff at the Johns Hopkins University U.S.-Korea Institute. The elements of the declaration in this article are the author’s conception.

13. Matthew Bunn of HarvardUniversity’s Managing the Atom Project has written in several of his reports about this proposal, including in the “Securing the Bomb” series published by the Project on Managing the Atom, HarvardUniversity, and Nuclear Threat Initiative. See www.nti.org/e_research/cnwm/overview/cnwm_home.asp.

14. IAEA Information Circular (INFCIRC) 225 provides guidance and recommendations for the physical protection of nuclear material against theft in use, storage, or transport and contains provisions relating to the sabotage of material or facilities. INFCIRC 225 was released in 1975, and its fifth revision was completed in 2011.

15. The resolution was unanimously passed by the UN Security Council in April 2004 under its Chapter VII authority to address issues dealing with international peace and security. The resolution requires that all member states create and enforce measures to prevent the proliferation of weapons of mass destruction materials and equipment, including through export controls and criminalization of misuse. States are required to report on their efforts to implement the resolution and are encouraged to request or lend assistance as necessary. For a list of the national reports that have been submitted, see www.un.org/sc/1540/nationalreports.shtml.

16. Kenneth N. Luongo, “Right-Sizing the ‘Loose Nukes’ Security Budget: Part 2,” Bulletin of the Atomic Scientists, June 25, 2010, www.thebulletin.org/web-edition/features/right-sizing-the-loose-nukes-security-budget-part-2.

17. Robert Golan-Vilella, Michelle Marchesano, and Sarah Williams, “2010 Nuclear Security Summit Commitment Implementation: Status Report” (forthcoming).

18. This is a permutation of an idea that was proposed as a government-industry forum in a new Brookings Institution study’s survey and was deemed to be acceptable to many of the industry respondents. See Brookings Institution, “Non-Proliferation and the Nuclear ‘Renaissance’: The Contribution and Responsibilities of the Nuclear Industry,” May 2010.

Including North Korea in Nuclear Security Summits

With the approach of the 2012 nuclear security summit in South Korea, an obvious question is what role, if any, North Korea will play at the event. Pyongyang was not invited to the 2010 Washington summit, and its nuclear weapons program, which is estimated to include enough plutonium for five to eight nuclear weapons, is a focus of serious international concern. The six-party talks on North Korean denuclearization have been stalled for years, and their future is unclear. The relationship between North and South Korea has deteriorated during the past year with the sinking of a South Korean naval vessel, the North’s shelling of YeonpyeongIsland, and the unveiling of the North’s uranium-enrichment capability.

Therefore, it is not clear how South Korea will want to approach the issue of North Korea in the context of the Seoul summit. One option for tying the North into the summit’s substantive scope is to utilize one or more of the centers of nuclear security excellence as a venue for discussions. The establishment of these centers was announced at or soon after the 2010 summit by China, India, Japan, and South Korea.

On April 21, 2010, just a week after the Washington summit, in a memorandum on the nuclear issue on the Korean peninsula, the North Korean Foreign Ministry stated that North Korea “has a willingness to join the international efforts for nuclear non-proliferation and on nuclear material security on an equal footing with other nuclear weapons states.”1 The members of the six-party talks have indicated that North Korea will not be recognized as a nuclear-weapon state. By expressing its willingness to join international efforts on nuclear material security, however, North Korea has opened the door to dialogue, although it likely would have to be in the context of the resumption of the denuclearization talks.

The process could develop as follows:

One or more of the five countries that had been involved in multilateral talks with North Korea—China, Japan, Russia, South Korea, and the United States—or even one or more nongovernmental institutions could invite Pyongyang to participate in a dialogue on best practices in nuclear material security. The location could be the new nuclear security centers in China, Japan, or South Korea or the existing Russian Methodological and TrainingCenter in the science city of Obninsk, which Russia and the United States have used for these types of activities for a number of years. The discussions could be held before the South Korean summit.

The substance of the meetings could be a series of discussions on the protection of direct-use materials, perhaps initially focusing on plutonium, or best practices for radiological material security. The workshops could focus on the technicalities of providing modern security for stockpiles using computer-based accounting methods; physical security systems that utilize cameras, fences, and intrusion detection technologies; emergency management and communications techniques; guard force training; and protection of materials in transit. They also could include border security and prevention of nuclear smuggling. These issues are at the heart of the summit’s objectives.

There is no need to engage with the North Koreans on the specific materials or facilities that they possess. In similar discussions of sensitive facilities, the United States and Russia have used mock-ups or computer-based animation of a “typical” facility very successfully.

The 2010 summit called for high levels of protection in all countries, not just the 47 countries

that attended the event. Reaching out to North Korea would serve that objective. It also would provide a low-profile, technical way of beginning to renew discussions with the North Koreans on sensitive nuclear issues.

Furthermore, it would provide Pyongyang with the opportunity to take steps to implement specific improvements that would serve its internal needs for security and demonstrate to the international community that it is a responsible possessor and protector of its nuclear materials. For example, North Korea could install modern physical protection equipment and invite experts to see it and verify its effectiveness. This would give the North Koreans an opportunity to demonstrate that they are addressing international concerns about the potential migration of their materials to other states or to nonstate actors.

If successful, this process could open the door for North Korea to engage with the 2012 summit and potentially could result in an agreement for the establishment of a Korean Peninsula Nuclear Material Security Zone. Such a step would form a concrete basis for further dialogue on nuclear issues on the peninsula and lead Pyongyang back to the six-party talks and the resumption of the denuclearization process detailed in prior agreements. —KENNETH N. LUONGO

ENDNOTE

1. “Foreign Ministry Issues Memorandum on N-Issue,” Korean Central News Agency, April 21, 2010, www.kcna.co.jp/item/2010/201004/news21/20100421-27ee.html.