

POLICY MEMORANDUM

TO: U.S. Foreign Policy Department
American University

FROM: Leah Smith
M.A. Candidate (2011)

SUBJECT: Addressing Concerns About Nuclear Material Security in Pakistan

DATE: April 15, 2011

Summary

Given the lack of transparency surrounding Pakistan's nuclear program, many in the international community perceive Pakistan's nuclear materials as being susceptible to theft or diversion. President Obama's call to secure all vulnerable nuclear stockpiles in four years has led some individuals within the United States Government to advocate for the formation of formal bilateral assistance programs along the lines of the Department of Energy's Nuclear Material Protection, Control, and Accounting (MPC&A) program to address perceived vulnerabilities in Pakistan's security practices. **Several factors, including the lack of trust and high levels of secrecy, make the implementation of a formal MPC&A assistance program unfeasible at present, although other, more flexible options are available to improve transparency around Pakistan's nuclear program.**

Background

The United States views Pakistan's nuclear materials as being vulnerable, although it admittedly has little concrete information to substantiate these concerns. What information is available indicates that:

- Pakistan has an estimated 2.7 tons of highly enriched uranium (HEU), which is enough fissile material to make approximately 98 nuclear weapons.
- Pakistan reportedly has 100 kilograms of plutonium, which is enough to fuel an additional 12 explosive devices.
- The location of these materials and their present composition – that is, whether they are stored in material or core form – are unknown factors.
- Pakistan's continued production of nuclear materials and its construction of additional production facilities indicate that the scope of the problem – at least in terms of the quantity of material to be protected – is likely to grow in coming years.
- Pakistani scientists have engaged in the transfer of nuclear technology and expertise in the past, and the involvement of the state in these transfers remains an unresolved issue.

Although Pakistani officials have historically maintained that all aspects of the country's nuclear program – including its materials, facilities, and actual weapons – are fully secured, the secrecy of its nuclear program and activities have often undercut international confidence in the country's security measures. Ultimately, the greatest issue at present is not whether Pakistan's nuclear program is currently insecure, but rather that **the opacity of the program has led to the perception that it is insecure.**

Given this perception of vulnerability, many have suggested the formation of a formal bilateral assistance program such as the MPC&A program, which was used by DOE with great success in Russia. As part of the MPC&A program, the United States provided Russia with surveillance systems, radiation detection technology, and physical security equipment in order to secure the facilities that housed fissile materials following the breakup of the Soviet Union. Although this program was ultimately successful in securing large quantities of fissile material at high-value Russian military installations, the possible expansion of this program to Pakistan is not possible at present.

Issues

When examining the possibility of implementing a bilateral nuclear material assistance program in Pakistan, it is important to assess the factors that contributed to the program's success in Russia. Although Russia and the United States shared a history of animosity as a result of the Cold War, the MPC&A program in Russia flourished because of the ability of both sides to overcome their past and work closely together on issues of great sensitivity and of high national security importance.

Although some parallels between U.S. – Russian relations and U.S. – Pakistani relations can be drawn – particularly in the areas of distrust and secrecy – direct comparisons should not be made. **The history of U.S. – Pakistani relations is different from that of the United States and Russia, with implications that will negatively impact any future attempts to implement a formal nuclear material security assistance program.** Two of the greatest factors that threaten to impede such a program in Pakistan are:

- *History of inconsistent bilateral relations, which has led to a trust deficit:* Relations with Russia may have been strained throughout much of the 20th century, but U.S. relations with Pakistan will prove far more problematic for future nuclear material security cooperation because of their historic inconsistency. Checkered bilateral relations have led many Pakistani officials believe that the United States is a fair weather friend as opposed to a staunch and unshakeable ally. Pakistani officials base their assessment on the fact that the United States has frequently reversed its policy decisions towards Pakistan on the basis of other U.S. regional interests. An example of this was seen in the 1980s when the United States developed close ties with Pakistan in order to oust the Soviet army from Afghanistan. Once this objective had been achieved, the United States reversed its policy of providing economic and military assistance to Pakistan and instead withheld this assistance in order to punish its former ally for its proliferation activities. This example is one of many dramatic policy reversals which have occurred in U.S. – Pakistani relations. As a result, many Pakistani officials have concluded that the United States' promises of close and lasting relations cannot be trusted. This prevailing sentiment of distrust is one that will greatly impede future cooperation on nuclear material security issues with Pakistan.
- *High levels of secrecy attached to Pakistan's nuclear program:* Pakistan's high regard for secrecy is not unlike that of Russia in the early stages of nuclear material security cooperation. What is different is how Pakistan's assessment of its security environment will likely prevent any progress on reducing the opacity of its program. This is due to two things:

- Firstly, Pakistan views India as its greatest existential threat, which is a conclusion based on India's demonstrated willingness to militarily intervene in Pakistani domestic affairs. Recognizing India's overwhelming conventional and nuclear military superiority, Pakistan relies heavily on its nuclear program as a counterbalance. Pakistan is unlikely to agree to provide information or access to outside observers which might compromise its force readiness or the survivability of its program in the event of an Indian attack.
- Secondly, Pakistan views the United States' interests in its nuclear program with suspicion, particularly given U.S. rhetoric about rolling back Pakistan's nuclear program. Although allies in the War on Terror, Pakistan has not entirely ruled out the possibility that the United States is actively seeking to undermine and eliminate its nuclear program.

Given Pakistan's assessment of its security environment, it is unlikely to allow U.S. officials access to its nuclear facilities as this might compromise force readiness or reveal sensitive information about its program. High level of secrecy will serve as a barrier to cooperative efforts to improve security at Pakistan's nuclear facilities.

Options

Concerns about Pakistan's nuclear program have as much to do with the perception of vulnerability as actual security deficiencies in Pakistan. Given the role of perception in defining the problem and recognizing the limitations that a pervasive lack of trust and high levels of secrecy will place on cooperative assistance programs, the United States has three policy options to consider for addressing nuclear material security in Pakistan.

- **Attempt to initiate formal, bilateral nuclear material security assistance programs (NOT RECOMMENDED)**

Although attempting to initiate a formal bilateral assistance program would help to address U.S. concerns about the lack of information on Pakistan's nuclear program, such an initiative would be unlikely to gain traction for the two reasons mentioned above – a lack of trust and a high regard for secrecy. These two issues would greatly impede the formation of a cooperative program in Pakistan in many ways, including:

- *Contracting security upgrades*: Pakistan's reticence to share critical information about its nuclear program would restrict the United States' ability to target upgrades at the most vulnerable of Pakistan's facilities. Without knowing the location of Pakistan's materials and the existing security measures present, it would be difficult for the United States to create a baseline assessment and formulate appropriate upgrades responses.
- *Accounting for security funds*: Pakistan's likely refusal to allow on-site access by U.S. personnel to its nuclear facilities would limit the United States' ability to confirm that its assistance dollars are being directly applied to security upgrades.
- *Sustaining U.S.-financed upgrades*: A history of inconsistent bilateral relations would make it difficult for the United States to ensure that U.S.-financed security upgrades will be sustained over the long-term, particularly after U.S. troops withdraw from the region.

Given the multiplicity of obstacles facing the implementation of a formal nuclear security assistance program, the United States should not undertake the initiation of such a program at present.

- **Maintain a hands-off policy towards Pakistan's nuclear program (NOT RECOMMENDED)**

Given the obstacles that face any bilateral nuclear material security engagement, one option available to the United States is to accept Pakistan's assurances that its nuclear program is secure and make no effort to address the perceived vulnerabilities in Pakistan's nuclear program. This approach would require accepting the status quo, in which the United States has little verifiable information about Pakistan's nuclear program. This approach is not an advisable strategy because:

- *Operating in an environment of uncertainty about Pakistan's nuclear program has harmed U.S. – Pakistani relations in the past.* For example, concerns about the possible collapse of President Musharraf's government led some officials in the United States Government to declare that the United States had adopted a plan to physically secure Pakistan's nuclear arsenal in the event of state collapse. This assertion implied three things – firstly, that the Musharraf Government was close to collapse; secondly, that the Pakistani Government could not secure its own nuclear program; and thirdly, that the United States could and would intervene to secure Pakistan's nuclear facilities. None of which worked to improve U.S. – Pakistani relations. Such statements by U.S. officials were likely formed out of incomplete information about the existing security mechanisms of Pakistan's nuclear program, and only perpetuated the fears in Pakistan that the United States was a danger to its nuclear program.

Uncertainty has led the United States to make statements of policy that have undermined U.S. – Pakistani relations in the past. Therefore, adopting a policy towards Pakistan's nuclear material stockpiles that perpetuates opacity without attempting to improve transparency only sets the United States up to make statements or policies that would damage bilateral relations in the future.

- **Focus on improving transparency measures to counter the perception of vulnerability (RECOMMENDED)**

The United States should undertake a series of activities to improve transparency between U.S. and Pakistani partners on issues of nuclear material security. These activities should include, but are not limited to:

- *Organizing reciprocal facility visits:* Pakistani scientific personnel should be invited to tour sensitive U.S. nuclear sites. This would not only demonstrate to Pakistani officials that the United States is willing to be equally open in its nuclear material security practices, but would also encourage a greater level of interaction between the Pakistani and American nuclear communities. These epistemic community ties were of great importance in U.S. engagement with

- Russia, and would likely foster a similar level of cooperation between U.S. and Pakistani scientists on issues of nuclear material security over the long-term.
- *Engaging in data exchanges:* The United States should participate in data exchanges with the Pakistani Government on the quantity of fissile materials in each side's possession. The United States has recently been far more open about disclosing information about its nuclear stockpiles, which means that such a cooperative effort would cost the United States little in terms of secrecy and inconvenience. It would, however, provide the United States with the opportunity to learn more about Pakistan's nuclear program and gain some level of assurance about the scope and potential danger of Pakistan's nuclear program.

This policy option recognizes that U.S. concerns about the security of Pakistan's nuclear materials are largely founded on a lack of information, and prescribes a solution which encourages the United States to engage Pakistan to improve the transparency of its nuclear program. Furthermore, these activities recognize the potential limitations presented by a historic lack of trust and high regard for secrecy, and seek to work within these constraints to provide an effective solution for addressing nuclear material security issues in Pakistan.

Although none of the activities outlined here guarantees U.S. personnel access to Pakistani facilities, each of these approaches increases the likelihood of initiating a dialogue between the U.S. and Pakistan on nuclear material security related issues and improving the transparency of Pakistan's nuclear program. This proposal should not be considered as an end-state of U.S. nuclear material security engagement with Pakistan, but rather as a first step towards greater cooperation on such issues in the future.

The Take-Away

Little is known about the size and security of Pakistan's nuclear program, and this uncertainty has long bred a fear in the United States about the possibility of nuclear leakage in Pakistan that may or may not be warranted. Given existing bilateral relations and Pakistan's strict regard for secrecy, immediately implementing a formal bilateral nuclear material security program is ill advised. Instead, the United States should engage in a series of confidence-building measures that improve the transparency of Pakistan's nuclear program so that the United States has a more accurate assessment of the quantity, location, and security of Pakistan's nuclear materials. Establishing a working partnership on the basis of trust is the first step that must be undertaken before the United States can meaningfully affect nuclear material security practices in Pakistan.

Bibliography

- Bunn, Matthew, Anthony Weir, John P. Holdren. "Controlling Nuclear Warheads and Materials: A Report Card and Action Plan." Nuclear Threat Initiative. March 2003.
http://www.nti.org/e_research/cnwm/cnwm.pdf (accessed January 2011)
- Grossman, Elaine M. "Talk of U.S. Plans to Secure Pakistani Nuclear Weapons Called 'Wildly Hypothetical.'" *Global Security Newswire*. 10 June 2009.
http://globalsecuritynewswire.org/gsn/nw_20090610_2476.php (accessed April 2011).
- International Panel of Fissile Materials. "Global Fissile Material Report 2010, Balancing the Books: Production and Stocks."
http://www.fissilematerials.org/ipfm/site_down/gfmr10.pdf (accessed February 2011).
- Kux, Dennis. *The United States and Pakistan, 1947-2000: Disenchanted Allies* (Washington DC: Woodrow Wilson Center Press, 2001).
- Luongo, Kenneth N. and Brig. Gen. (Ret.) Naeem Salik. "Building Confidence in Pakistan's Nuclear Security." Arms Control Association. December 2007.
http://www.armscontrol.org/act/2007_12/Luongo (accessed March 2011).
- Sanger, David E. and William J. Broad. "U.S. Secretly Aids Pakistan in Guarding Nuclear Arms." *New York Times*. 18 November 2007.