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IPCS POLICY BRIEF



## NUCLEAR SECURITY SUMMIT 2014 AND BEYOND

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AN AGENDA FOR INDIA



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The stage is set for the third Nuclear Security Summit (NSS) to be held in The Hague (Netherlands) in March 2014, with participating countries preparing to build on the agenda of the Washington and Seoul Summits and make renewed pledges to domestic and international efforts to secure nuclear materials around the world. With this in mind, the IPCS undertook a policy discussion on an agenda for India in March 2014.

Implemented as a two-part exercise, the IPCS discussion series on Global Nuclear Materials Security aimed to review and critique the global stewardship of nuclear materials security, with particular reference to India's commitments and responsibilities. The following questions were explored during the discussions and informed the subsequent policy recommendations:

- What threatens the security of nuclear materials?
- What is the level of preparedness to address the threat?
- What are the pros and cons of global approaches to securing nuclear materials? Can these impediments be overcome? How?
- What has been and what should be India's role and contributions in the global effort considering India's security and possibly other interests? How does India see the threat of nuclear terrorism?
- What systems does India have in place to ensure the security of nuclear materials?
- What are the impediments to their successful implementation? What is the level of implementation? How can this be improved?
- What can India contribute to strengthen global efforts to secure nuclear materials worldwide?

The expert panel comprised of Amb Lalit Mansingh, Prof R Rajaraman, Amb Sheel Kant Sharma, Prof PR Chari, Amb Arundhati Ghose and Wing Commander Ajey Lele.

The following recommendations are based on the discussions led by the expert panel.

*Drafted by*

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## Maintain Focus on Nuclear Terrorism

To face the threat of nuclear terrorism, a matrix of four 'd's to address the threat can be considered:

- **Detection:** This remains an intelligence function. An area for development is nuclear forensics, which is a way of determining what the source of fissile material is.
- **Deterrence:** This involves threatening countries that harbour nuclear terrorists with commensurate punishment. The problem is how to deter international terrorist organisations like the al Qaeda, which has its networks and franchisees in many different countries.
- **Defence:** Tighten global security of global facilities and materials, as the chain is only as strong as its weakest link.
- **Disaster Management:** Comprises a mix of relief, rehabilitation, medical responses and so on to deal with the national calamity of a nuclear attack. Some issues to consider are scenarios that involve first responders getting disabled, alternate steps if doctors/nurses are the first to be affected, and the sociological effects. However, there is no precedent in India to base one's understanding on.

## Strengthen the IAEA and reinforce its centrality in global nuclear security

- Contribute more funds to the IAEA, over the USD 1 million already offered.
- Training of technical personnel could be undertaken, especially at the Centre of Excellence where courses are to be held.

- An attempt could be made to inspire international confidence and increase transparency by inviting peer reviews of its nuclear security arrangements by the IAEA.

## **Maintain records for accurate nuclear accountability**

Maintain records of all aspects of reactors, such as technology used, total mass of HEU produced, and at what level. These records do not have to be made public but should be maintained for self-accounting. The understanding is that India takes care of this very closely. If this is indeed the case, India could make a statement to that effect without revealing particulars.

In the former USSR, accountability was poor – some amount of HEU is still missing – and this can happen anywhere. Records are therefore very important, especially if a day comes when all materials have to be declared.

## **Reduce excess stock of fissile materials**

Steps must be taken to reduce excess stock of fissile materials. Some countries have much more fissile material than they need for weapons, and in this event, the excess stock of HEU could be converted to LEU (low enriched uranium) or to oxide which can still be used in reactors but is not weapons-usable (as recommended to Iran).

- There should be an attempt to burn as much HEU and plutonium as possible in civilian reactors.
- Non-weapons technology could be modified to use LEU instead of HEU. Some converted research reactors now use LEU, others have simply closed down. 62 reactors around the world have been converted to LEU, and about 120 HEU-fuelled

reactors remain.

- All nuclear submarines in the world run on HEU – some at the bomb-making level (US and Russia use 90 per cent enriched uranium) and others a little below (India uses 30-40 per cent enriched uranium). Interestingly, the amount of fissile materials kept aside for nuclear submarines is more than the amount reserved for weaponisation. To its credit, the French nuclear submarine fleet was initially powered by HEU but this has now been replaced by LEU (5 per cent enrichment).

### **Aim for managed transparency by preparing for inventory declaration**

At a later stage, preparation should be made to make declarations of quantities and details of fissile material stock, but in stages. The US has voluntarily made full declarations already; they see no loss because they have enough weapons already. If a state is not willing to consider such ‘managed transparency’, then they have should not pay lip service to global efforts at securing fissile materials. A country should be responsible for making its own schedule, and these declarations can be made non-invasively.

### **Proactively participate in global nuclear security through advertisement and projection**

While the impression is that India accepted the commitments and responsibilities set out in the 2012 Seoul Communiqué, India continues to be defensive about its actions. For example, in the section on ‘Transportation Security’, the Seoul Communiqué encourages “the establishment of effective national nuclear material inventory management and domestic tracking mechanisms, where required, that enable States to take

appropriate measures to recover lost and stolen materials.” If India has a tracking mechanism, a statement about its existence that does not refer to its exact shape and structure will establish the seriousness of India’s global and domestic commitments without compromising its security.

- Whatever the impression of NGO activity, it cannot be denied that they are important opinion-makers amongst the more powerful countries. It is therefore in the national interest to engage with them and unwise to ignore the political power attached to these voices. Not all of them have an NPT agenda.
- Fulfil commitments already made at earlier NSS.
- More effective ground-level coordination in the Public Diplomacy Division of the Ministry of External Affairs (MEA) for better communications and outreach.