
Pakistan's Non-Proliferation Policy

Zulfqar Khan

Since 1979, Pakistan has emerged as a nuclear weapons state. A great deal of attention has focused recently on just three aspects of Pakistan's nuclear program: the 1998 nuclear tests, the revelations surrounding the activities of A.Q. Khan, and the issue of the security of nuclear materials and facilities in the face of the country's battle against extremists. As a result, the longevity and extensiveness not only of the nuclear program, but also of Pakistan's non-proliferation efforts have been obscured.



Dr. Zulfqar Khan, Senior Analyst, Pakistan Ministry of Defence and Visiting Fellow, Islamabad Policy Research Institute

In fact, Pakistan's non-proliferation policy dates from the 1950s. Beginning in the 1950s, Pakistan has established a number of institutions and mechanisms to oversee nuclear power generation and to manage safety and security issues in accordance with the International Atomic Energy Agency's (IAEA) The Physical Protection of Nuclear Material and Nuclear Facilities document, which was used as the model for inspection and enforcement objectives.¹ (See Table 1)

The principles of Pakistan's nuclear non-proliferation policy were premised on adherence to the ideals and norms of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) of 1968, despite Pakistan's non-acceptance of the Treaty. The Pakistan Nuclear Regulatory Authority (PNRA) was established on January 22, 2001 under the obligation of International Nuclear Safety Convention Article 8(2) to ensure effective separation between the functions of the regulatory body (PNRA) and those of any other body or organization concerned with the promotion or utilization of nuclear energy.

Since the nuclear explosions of May 1998, Pakistan has extensively reorganized the different departments dealing with nuclear facilities (See Table 2) in an effort to augment their security, acting as a responsible nuclear weapon state. Pakistan consistently has striven to fulfil its obligations under the diverse elements of the international nuclear non-proliferation regime, including specifically with respect to United Nations Security Council Resolution (UNSCR Res) 1540, issued on April 28, 2004. Consonant with UNSCR Res 1540, Pakistan instituted a host of non-proliferation legislation/measures. In fact, even earlier (i.e., after the 1998 nuclear tests), Pakistan had strengthened export control mechanisms in order to prevent the illicit proliferation of weapons of mass destruction-related (WMD) technologies and their means of delivery to any entity, including to non-state actors.

1. This document ((INFCIRC/225) continues to serve as the basis for the IAEA Code of Conduct on Safety and Security of Radioactive Sources and the Convention on Physical Protection of Nuclear Materials (CPPNM).

Table 1: History of Nuclear Safety in Pakistan

Organization	Objectives	Year
A twelve-member Atomic Energy Committee was set-up	Explore scientific and industrial applications for nuclear energy	1954
Pakistan Atomic Energy Research Council (PAERC)	Promote nuclear technology	1956
Pakistan Nuclear Safety Committee	Ensure nuclear safety	1964
Pakistan Institute of Science and Technology (PINSTECH)	Conduct research and development for peaceful uses of atomic energy	1965
Pakistan Atomic Energy Commission (PAEC)	Develop nuclear power and fuel-cycle facilities; promote research on peaceful uses of atomic energy	1965
Centre of Nuclear Studies (CNS)	Train Pakistani scientists/engineers	1969
Nuclear Safety & Licensing Division	Ensure nuclear safety	1970
Directorate of Nuclear Safety & Radiation Protection	Ensure nuclear safety and radiation protection	1984
Pakistan Nuclear Regulatory Board (PNRB)	Regulate nuclear safety	1994
Pakistan Nuclear Regulatory Authority (PNRA)	Responsibility for formulation of regulations and their implementation	2001
Directorate of Safety (DOS)	Created to cater to the safety needs of PAEC	2002

Table 2: Pakistan's Export Control/Execution Architecture

Institution/Regime	Subsidiary Institutions/Bodies/Basic Principles
National Command Authority – NCA	<ul style="list-style-type: none"> ➤ Strategic Plans Division – SPD ➤ Strategic Commands & Security Division ➤ Employment Control Committee ➤ Development Control Committee ➤ Arms Control & Disarmament Agency
Pakistan Nuclear Regulatory Authority – PNRA	<ul style="list-style-type: none"> • Licensing of all the nuclear/radiological facilities <ul style="list-style-type: none"> ➤ Safety and security of facilities ➤ Functions under the President/PM Offices ➤ Augments Nuclear Safety Convention ➤ Signed Illicit Trafficking Data Base-IAEA to share data on seizures
Container Security Initiative – CSI	<ul style="list-style-type: none"> • Pakistan has signed a MoU with the US, and it was designated the Model State for the Pilot Programme of the CSI <ul style="list-style-type: none"> ➤ Pakistan-US Customs ➤ Declaration of Principles of the CSI ➤ Manning of scanners at entry/exit points ➤ Pakistan-US Customs direct network links ➤ Intelligence Agencies ➤ Border/coast guards/maritime agencies
Mega Port Initiative-MPI	<ul style="list-style-type: none"> • Consultations in progress
Export Control Act 2004	<ul style="list-style-type: none"> • Mechanism to criminalize/prosecute offenders <ul style="list-style-type: none"> ➤ Imprisonment up to 14 years ➤ Fine of up to Rs. 5 million ➤ Confiscation of property/assets
Statutory Regulatory Orders – SROs	<ul style="list-style-type: none"> • In vogue since the early 1950s <ul style="list-style-type: none"> ➤ Relevant Customs acts
National Control List – NCL	<ul style="list-style-type: none"> • Based on the EU/NSG/Australia Group/MTCR Models <ul style="list-style-type: none"> ➤ Listing of NBC-related technologies/materials ➤ Periodical reviewing/updating
Chemical Weapons Convention Implementation Ordinance – 2000	<ul style="list-style-type: none"> • Pakistan is party to the CWC <ul style="list-style-type: none"> ➤ Strengthens export/re-export/trans-shipment of goods ➤ Jurisdiction over overseas Pakistanis as well ➤ Regulates technologies/materials/equipments ➤ Possesses National Authority on CWC in Foreign Office
BWC – signed in 1974	<ul style="list-style-type: none"> • Pakistan is party to the BWC <ul style="list-style-type: none"> ➤ Meets all the existing obligations ➤ However, no mechanism is embedded in the BWC to verify compliance by the state parties ➤ Biological/delivery aspects covered by the Export Control Act 2004
Strategic Export Control Division (SEC DIV) – Approved by the Government of Pakistan in 2007	<ul style="list-style-type: none"> • To ensure the overall implementation of the Export Control Act 2004 & the Export Policy Procedure Order 2006 • It would also have an independent Oversight Board to supervise the implementation of Export Control Act 2004 <ul style="list-style-type: none"> ➤ Initially function under the Foreign Office ➤ Subsequently, to take a shape of an independent division ➤ To control the export of nuclear, missile technology, biological agents, and toxins-related items

In addition to the safety and security measures/architecture for Pakistan's nuclear assets and facilities previously mentioned, the following non-proliferation laws are now in force:

- December 22, 1998: The PAEC Directorate of the Pakistan Nuclear Safety and Radiation Protection (PNSRP) promulgated new regulations concerning the physical protection of nuclear materials/facilities in the PNSRP Regulations 1990.
- July 1998, February 1999, and August 1999: Pakistan enacted three statutory regulatory orders to prevent the export of fissionable material; and to make mandatory “no objection certificates” for the export of nuclear substances, radioactive materials, and nuclear energy-related equipment.
- February 17, 2004: The Ministry of Commerce published amendments to the Imports and Exports (Control) Act of 1950 and to the Export Policy and Procedures Order of 2000, thereby reconciling these pieces of legislation in conformity with the new requirements.
- September 14, 2004: The National Assembly adopted the Nuclear Export Control Bill aimed at preventing the proliferation of sensitive technologies in accordance with UNSCR Res 1540. (On October 5, 2004, PNRA also published a new Regulation in this regard.)
- 2005: In accordance with the Nuclear Security Action Plan (of the PNRA), Pakistan joined the IAEA's Illicit Trafficking Data Base (ITDB) information system, thereby agreeing to share data on seizures with the Agency.
- April 13, 2005: Pakistan endorsed the Suppression of Acts of Nuclear Terrorism initiative in the UN General Assembly.
- October 2005: Pakistan issued fresh lists of technologies and materials related to the nuclear and biological weapons that will be subject to an intrusive export control system. Pakistan also issued a comprehensive National Control List (NCL) of various controlled items based on the European Union (EU) system of classification/model and the lists drawn up by the Australia Group, the Nuclear Suppliers Group (NSG), and the Missile Technology Control Regime (MTCR).
- September 2006: Pakistan supported the United Nations Global Counter-Terrorism Strategy and its Plan of Action in the General Assembly, which was supposed to advance 1540s' objectives. Pakistan established a Strategic Export Control Division in 2007 under the Ministry of Foreign Affairs, which also has an Oversight Board that would independently supervise the implementation of the Export Control Act 2004 and the other laws relating to the illicit trafficking and export control mechanisms.
- June 2007: Pakistan joined the Global Initiative to Combat Nuclear Terrorism, which demonstrates its determination to effectively uproot the menace of nuclear proliferation.
- August 2008: During the Inter-Sessional Process Meeting of Experts to the Biological and Toxin Weapons Convention, Pakistan endorsed the basic objectives of the Convention regime.

In addition, as reflected in Tables 3-5, Pakistan is a signatory to a host of international conventions; most of its nuclear facilities are under IAEA safeguards; and the PNRA is vigilantly enforcing stringent safety and security measures.²

Table 3: Pakistan’s Safeguarded Nuclear Facilities

Facilities	IAEA Safeguards
Pakistan Research Reactor-1-2	Yes
Karachi Nuclear Power Plant	Yes
Chashma Nuclear Power Plant-1	Yes
Chashma Nuclear Power Plant (CHASNUPP-1) and CHASNUPP -2 (in advanced stages of construction)	Yes
PINSTECH	Yes

Table 4: Pakistan’s Ratification of Different Conventions

Conventions
Convention on Nuclear Safety
Convention on Early Notification of a Nuclear Accident
Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency
Convention on the Physical Protection of Nuclear Material
Biological Weapons Convention
Chemical Weapons Convention

Table 5: PNRA’s Regulations

Regulation on the Licensing of NPPs (Nuclear Power Plants) - (PAK/909)
Regulation on the Safety in NPP Design (PAK/911)
Regulation on the Safety in NPP Quality Assurance (PAK/912)
Regulation on Radiation Protection (PAK/904)
Regulation on the Licensing of Facilities other than NPPs (PAK/908)
Regulation on the Safety in NPP Operations (PAK/913)
Regulation for Radioactive Waste Management in Pakistan (PAK/915)
Regulation on the Safety in NPP Sites (PAK/910)
Regulation for Transportation of Radioactive Waste in Pakistan (PAK/916)
Regulation on Management of a Nuclear or Radiological Emergency (PAK/914)
Regulation for Licensing of safety class equipment and component manufacture (PAK/907)

2. For the command and control structure of Pakistan’s National Command Authority (NCA), see, “Nuclear Weapons R&D Organizations in Nine Nations,” *Congressional Research Service* (March 16, 2009) available at www.crs.gov

SUPPORTING PAKISTAN'S NON-PROLIFERATION EFFORTS

According to Ken Berry of the East-West Institute, regardless of the A. Q. Khan nuclear network's activities, the latest crises caused by the Taliban/terrorists in the tribal areas, and the over-stretching of Pakistan's armed forces, "Pakistan's nuclear assets apparently remained under the firm control of not only the military, but also the large, specially trained security force created precisely to protect those assets."³ Nevertheless, in a globalized world, where non-state actors can move freely from country-to-country, the proliferation risks are real — as Pakistani officials readily acknowledge and have taken numerous steps to reduce.

The international community's assistance to Pakistan in bolstering security around its nuclear facilities would go a long way towards strengthening its safety and security apparatus and non-proliferation mechanisms. Since 2001, the United States and Pakistan reportedly have been cooperating with each other on nuclear (and biological) safety and security, including the provision of US support in the form of equipment and training.⁴ This and other similar collaboration should be sustained and further elaborated in order to bolster Pakistan's increasingly extensive non-proliferation efforts and thus strengthen the international nuclear non-proliferation regime — in spite of its discriminatory aspects.

3. Ken Berry, "How Safe Are Pakistan's Nuclear Facilities?" *EastWest Institute Policy Paper 2/2008* (February 2008), <http://www.ewi.info/pdf/SecurityPakistan.pdf>

4. In this context, the US Central Command urged its allies "to provide technical advice and assistance in strengthening government capacity, such as improving Pakistani institutions ... In 2009-2010 the Taliban's momentum must be reversed ... and the international community must work with Pakistan to disrupt the threats to security along Pakistan's western border;" *United States Central Command - White Paper of the Interagency Policy Group's Report on US Policy toward Afghanistan and Pakistan*, Department of Defense (March 2009), http://www.centcom.mil/index2.php?option=com_content&task=view&id=1424&pop See also remarks by nuclear expert Leonard Spector, who stated that, "the United States has been working with Pakistan pretty actively for the last decade to try to enhance security and to share kind of best practices that we have. So I think in that sense, there really probably has been substantial improvement." Remarks delivered at the conference on "Nuclear Crisis Points: Iran, North Korea, Syria and Pakistan," *Carnegie Endowment for International Peace*, April 6, 2009.