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Nuclear Security in Pakistan: Measures, Myths, and Realities Dr. Yunas Khan

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Abstract

Pakistan's nuclear security framework has been a focal point of global scrutiny, particularly due to its rapid nuclear expansion and the volatile geopolitical environment of South Asia. This study examines the multifaceted aspects of nuclear security in Pakistan, addressing both the implemented measures and the persistent myths surrounding its program. Since the 1998 nuclear tests, Pakistan has established robust institutional mechanisms, including the National Command Authority (NCA) and Strategic Plans Division (SPD), to oversee nuclear safety and deterrence. Physical security protocols, cybersecurity measures, and Human Reliability Programs (HRPs) are critically analyzed, highlighting Pakistan's efforts to mitigate risks such as insider threats, terrorism, and illicit trafficking. Despite these measures, challenges remain, including public misperceptions and international skepticism, often fueled by exaggerated claims of vulnerability. The study dispels common myths such as the "loose nukes" narrativemwhile acknowledging real concerns, such as evolving cyber threats and regional instability. It also explores the role of non-governmental organizations (NGOs) in advocating for nuclear safety and fostering public awareness. By juxtaposing Pakistan's security infrastructure with prevailing myths, this analysis underscores the need for a balanced, evidence-based discourse to address both domestic and international apprehensions. The findings emphasize Pakistan's commitment to maintaining a credible minimum deterrent while navigating the complexities of nuclear security in a high-stakes region.

Keywords: Pakistan, Nuclear Security, National Command Authority (NCA), Strategic Plans Division (SPD), Physical Security, Cybersecurity, Human Reliability Program (HRP), Non-Proliferation, South Asia, Deterrence.

Introduction

Pakistan boasts the fastest growing nuclear program globally, a development that introduces a myriad of unique challenges that must be navigated carefully. A troubling series of terrorist attacks against military targets, including significant assaults on a naval base and an Air Force base at PAC Kamra, have brought to light a number of critical security and management lapses associated with these sensitive installations. The latest incident, which unfortunately involved an insider attack at a facility housing some low-yield tactical nuclear weapons, is particularly alarming. Disturbingly, this event was not reported until a full six days had passed, raising

considerable concerns about operational security and the potential implications for national safety (Ijaz, 2024). This incident, like many preceding it, brings with it a dual-edged danger; while heightened scrutiny of Pakistan's nuclear program is warranted, it also poses the risk of escalating both tension and instability in an already precarious region. The intricate dynamics of this situation are essential components in understanding the complex relationship between Pakistan and India, two countries that share a fraught history, having engaged in four full-scale wars to date. The ongoing tensions between these nations often result in nearly daily crossborder skirmishes, further contributing to the instability of the region. This volatile environment has led to South Asia being acknowledged as the zone most likely to ignite a nuclear war, a title no nation wishes to hold. Since both Pakistan and India conducted their respective nuclear tests in 1998, which they each declared as the first demonstrations of their nuclear capabilities, fears surrounding the unsafeguarded nature and potential proliferation of these weapons have intensified. Intermittent international scrutiny of Pakistan's nuclear program has grown in response to these fears, reflecting the global community's concerns. In light of the various incidents and the surrounding narrative, this essay aims to comprehensively analyze the multifaceted aspects of nuclear security in Pakistan. The need for such analysis is paramount, especially considering the immense security and safety implications associated with managing a program that is both large and rapidly expanding. Through thorough examination of the issues at hand, it can be argued that many of the myths surrounding Pakistan's nuclear program may be dispelled. By doing so, it becomes possible to cultivate a more realistic understanding of the actual circumstances. Specifically, the notion that Pakistan's nuclear program poses a greater risk compared to India's emerges as a misguided perspective, often rooted more in fear than in fact. Conversely, there are legitimate dangers that underscore the pressing need for a more cohesive and concerted approach to nuclear security in the region (Torres et al., 2012).

Nuclear Security Framework

Following the nuclear tests of 1998 Pakistan instituted an extensive legal and regulatory structure to ensure nuclear security. The National Command Authority (NCA) and the Strategic Plans Division (SPD) are responsible for formulating and overseeing the implementation of policies on nuclear security. The Nuclear Command & Control Authority (NCCA) was established as the appropriate forum for deliberation and decision on nuclear security issues. The Joint Chiefs of Staff Committee (JCSC) and the Strategic Plans Division (SPD) are responsible for execution aspects of nuclear security and associated support to field operations. The Strategic Forces Commands of the army, the air force and the navy respectively, are responsible for the operational command and control of land-based missiles, fighter aircraft and ship-based assets (Azad & Dewey, 2023).

Mechanisms. Legal and regulatory steps for interlocked management systems for nuclear safety and security have been implemented. Importantly, as far back as 2001 the Pakistan Nuclear Regulatory Authority (PNRA) established an independent directorate for security that reports directly to the Director General. International partnerships have been developed in the implementation of existing international agreements, including the Convention on Physical Protection of Nuclear Material (CPPNM) and its 2005 Amendment and the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT), and in other areas including support in capacity building. In consultation with international partners and with an awareness of international best practices in security measures, a comprehensive set of guidelines and manuals on nuclear security has been issued to provide overarching policies for all entities engaged in nuclear operations and materials (Ullah, 2018). Efforts are to continue to strengthen and further improve domestic nuclear security mechanisms through effective

regulations, best practices, training and guidelines focusing on the enhancement of human reliability, material control and accounting measures for detection and preventions of unauthorized acts.

Despite these measures and ongoing activities, the nuclear security framework in Pakistan remains a work in progress, with the challenges of demonstrating effectiveness as well as the sustainable stability of legal and security infrastructure. An ongoing process is required for the identification of remaining gaps, the devising of options for their amelioration and the implementation of the appropriate solutions. In addition, changing threat scenarios and the development of new technologies will require continuing updating of operational procedures and the legal and regulatory underpinning of the framework. Navies constantly assess threat information, and operational response measures are adapted accordingly. This is a complex task, as naval forces have to consider not only the nature of the threat and the effective response, but also the impact of such action on wider strategic aims and relationships. Similarly, while seeking to achieve the highest levels of nuclear security, there is a need to avoid measures and activities that could stoke uncertainty and instability (Azad & Dewey, 2023).

Physical Security Measures

Safeguarding nuclear and other radioactive materials from theft or misuse is a significant national security challenge for all countries. The diverse elements of Pakistan's nuclear-capable complex, the evolving threat posture to it, and the measures in place to guard against various forms of threats, constitute the primary focus of this analysis. The principal source of information consists of a series of high-level visits to Pakistan's major security-related institutions. Additionally, a number of interviews with prominent sources within Pakistan and reviews of a significant number of press reports support this analysis. The nature of the threat of an unauthorized use, transfer or intrusion into a nuclear facility may be diverse.

Moreover, the people who may be involved; like vigilantes, rogue or disgruntled insiders, professional terrorists etc., are diverse too. The first line of defense against such a threat is physical security measures implemented at the facility. A range of physical security measures starting from perimeter defense and going to access control systems are in place to detect and prevent unauthorized access to a facility. Physical security measures can be considered as a series of layers, and if an adversary breaches one layer, he still has to defeat the other layers before reaching the target. The standard technologies used to secure a sensitive location include biometrics, surveillance systems, gates, fences, guards, locks, doors, barriers, and scanners. There is an immense need to safeguard nuclear material from theft or from endangering individuals or the environment. Access to control can be applied in two areas; to sensitive areas and to sensitive information. The ability to rapidly detect and delay an adversary before he reaches bonded material is considered to constitute a good physical protection system (Singh, 2010) Effective physical protection requires, amongst other things integrating technology, personnel, procedures and the facility design.

Adequate and effective safeguards will offer effective protection against nuclear terrorism and illicit trafficking, reduce security threats due to potential incidents and accidents involving nuclear material and enhance the level of nuclear and radiation safety. In the case of a mishandling incident, the time taken to control the situation can mean the difference between life and death. The implementation of the physical secure facility model is of prime importance, as this is the place where the nuclear material is stored and worked upon. But at the same time, the model must not impose gross restrictions on the operational freedom of the facility. It is necessary for some additional steps to be taken at the national level. In the light of ongoing and emerging threats, an appropriate reconsideration and improvement of protection systems will

be done. The facility specific protection system architecture that was maintained by the organization will be slightly modified in accordance with the updated physical protection guidelines. With the help of this model, it is guaranteed that the measures being implemented would be as effective as possible regarding the additional protection of nuclear material (Zubair et al., 2024).

Facility Security Protocols

Since the inception of atomic weapons, the world has seen a mixture of worrying incidents in this regard. Among state-controlled programs, there have been multiple incidents of trafficking in weapon usable nuclear material (Ullah, 2018). Despite heavy security control, the theftist did not have to defeat these security systems but rather passed what had been called the insider outsider threshold. In view of these realities, the challenge in the technical assessment of the security of Pakistan's strategic assets is to build on the widely agreed characteristics of security which become more important as the arsenal and related capabilities expand. Beyond the net arsenal, Pakistan's nuclear dual-use infrastructure creates compound security challenges with each new facility, system, or platform expanding the requirements for a comprehensive security architecture. Each hit of answers or equipment was said to have a specific security arrangement. This statement demonstrates a false assumption that security is a state rather than a process. Instead it must be conceptualized to embrace a dynamic process comprising multiple overlapping and redundant layers of protection.

Security does not operate by a checklist or threshold that is, it cannot be stated that an asset or practice is insecure unless specific checklist of vulnerabilities have been addressed. A more useful framework remains an assessment of the probability of deviations in standard practices and security performance that can mature to more comprehensive vulnerabilities. In this respect, overly episodic conclusions must be superimposed by a limited data set. Yet common risk after birth that they were likely to seek a compromise on the management of unaccompanized weapons would have detrimental impact on the safety of the entire software chain. Other analysts remain circumspect believing incidental verifications of the safety and security of weapons. Given that security (compared to safety and availability) remains an underdeveloped field, the level of control and organizational safety must be subjected to unusual operational requirements and extensive training since neither was foreseen in these assessments (Guzman et al., 2021). That such capabilities only raise the bar for adversaries is even less explored. Moreover, the mere knowledge of a security feature does not reveal all its classified aspects. In many contexts, basic principles behavior detection in surveillance, for instance can be widely known but the implementation of method itself been secret.

• Transportation Security

The transportation of nuclear materials across facilities and borders brings with it particular vulnerabilities and challenges that have to be addressed to maintain the security of such commodities. Many protocols have been established on how to best transport these components in the most secure manner. The punctilious follow-up of stringent standard operating procedures as well as the compliance of protocols established between various security and enforcement agencies ensure the safe and secure transportation of nuclear components such as; fuel, other radioactive substances and prototype devices of nuclear weapons (Jones, 2010).

In addition, security clearance protocols for transportation of nuclear substances both within the country and across borders are vital for transportation security. Sensitive nuclear substances are transported in specialized vehicles along routes that can withstand attempted breaches, large and professional security escorts are provided to counter surprise attacks. These security escorts

comprised of a mix of specialized vehicles are dispatched ahead, alongside, and behind the nuclear cargo also coordinate with other agencies including local police, military, and high way police, to strengthen security arrangements. Coordination with law enforcement and military agencies is critical to ensure punctual and immediate response to any incident. Security clearances and permissions for the transportation of nuclear substances are granted after a thorough and detailed risk assessment with the establishment of a detailed movement plan including routes and modes of transport to mitigate potential hazards. Technological advancements including communication systems and GPS tracking ensure a quick and responsive action-demanding situation. It is believed that it is more important to treat all such incidents as potential security breaches, maintaining a maximum level of preparedness.

Historically, comprehensive and effective security arrangements in deployment for the transportation of nuclear substances have not been successfully breached, although there have been incidents and some petty thefts of vehicles carrying undefined nuclear materials which might not have been properly secured. Since 1971, Pakistani experience of transportation of nuclear and sensitive items is safe and secure without any losses howsoever. Four instances took place during the Indus Water Treaty shipments in 1971 and 1973 where shipments were stopped/coerced by the Indian navy and heaviest naval escorts were provided. The cases of Abdul Qadeer Khan's network are entirely different as these shipments were by trucks across the borders without any military backup (Burr, 2021). To date globally there have been hundreds of known, and thousands of undocumented, nuclear materials smugglings, including HEU and plutonium. So saying that until now, Pakistan with many limitations has a perfect record of nuclear theft of sensitive items howsoever is more of a myth or just a declaratory statement as it is difficult to substantiate or prove because nuclear security incidences are less publicized, and low key incidents do take place worldwide.

Cybersecurity in Nuclear Facilities

On December 7, 2012, Pakistan's National Command Authority (NCA) reiterated its longstanding objective of maintaining a credible minimum deterrence posture, which is vital for national security. It noted with satisfaction the successful operationalization of the Strategic Plans Division (SPD), a key body that oversees and manages the employment of nuclear weapons within the country. The NCA also held discussions aimed at improving the command and control structures that govern the management of Pakistan's nuclear weapons program, ensuring that these systems are robust and effective (Abid, 2023). Furthermore, the authority worked to dismantle various misconceptions and myths associated with their program, clarifying the realities on the ground. This is indeed Pakistan's intricate story a narrative shaped by the multilayered realities of national defense, but also significantly influenced by myths and unfounded concerns circulating in global discourse. In this nuclear age, a nuclear-capable Pakistan interacts with numerous international powers and stakeholders. Yet, many of the resulting conversations and discussions often fail to adequately capture the real problems and comprehensive responses of this complex South Asian state, misrepresenting its strategic intentions and security dynamics.

In managing the myth and realities of nuclear Pakistan, it is important to address an increasing concern: cybersecurity threats to its nuclear facilities. There may be many reasons for these fears, including recent revelations of nuclear countries being targeted by state and non-state actors. To be sure, security of nuclear assets has always been somewhat controversial. Ever since Einstein's famous dictums the letter to the U.S. president during the Second World War and the open telegram to the erstwhile Soviet leader, Stalin nuclear security has captured the imagination of strategists, scholars, and the public. However, with a South Asian twist, it is the

security of critical information systems cybersecurity that has emerged as the most recent concern of Pakistan's nuclear authorities. There are several reasons for this concern. At the most fundamental level, cyber security threats are real and growing. Nuclear facilities may not be immune to these threats ((Dhiraj) Kukreja, 2017). There are concerns that terrorists or criminals could not only target a facility to cause harm, but may try to circumvent safety measures to acquire fissile material. The recent disclosure of insider threats at the U.S. facilities has heightened these concerns.

Human Reliability Programs

Efforts to enhance the effectiveness of security measures at Pakistan's nuclear facilities are often eclipsed by significant concerns that revolve around the safety, security, and reliability of the nation's rapidly growing and expanding nuclear arsenal. This situation brings to light essential insights as it seeks to closely examine the constructive and positive initiatives that have been undertaken, and continue to progress, by Pakistan in order to significantly enhance its nuclear security. Furthermore, it also actively challenges the widely prevalent narrative that tends to depict Pakistan as the world's most dangerous country, often ignoring the real complexities of the situation. The ongoing efforts to bolster the nation's nuclear security have consistently remained overshadowed by serious concerns regarding the safety, security, and reliability of a nuclear arsenal that is expanding at a rapid pace. Despite the notable and serious divergences that often divide Washington, D.C., and Islamabad, Pakistan has, on various occasions, stepped forward with rare and meaningful proposals, demonstrating remarkable pragmatism in actively addressing these pressing concerns and fostering greater stability (Zubair et al., 2024).

Given the highly secretive nature of the Pakistani nuclear program, most claims are tailored to the information available in open sources, notwithstanding the considerable gaps in understanding. Nevertheless, claims can be categorized into those that are well-supported by evidence, those that can neither be proven nor refuted, and those that are based on insufficient or inconclusive evidence. Rather than speculation or assumptions based on lack of information, this analysis is informed by scholarly attention to the debate on proliferation, and also by a number of direct and indirect outcomes of Pakistan's commitment to nuclear security. This awareness is crucial to afford an adequate appreciation of the measures taken by Pakistan to prevent malicious acts directed against its nuclear facilities and materials, and it places such actions in the context of the broader cultural and ideological framework underlying Pakistan's nuclear security arrangements (Kozlová et al., 2017).

Public Perception of Nuclear Security

The purpose of this article was to investigate public perception about nuclear security in Pakistan. In countries like Pakistan where deliberative national security policies are usually absent, it is important to know how beliefs and fears shape a country's national security institutions (J 1987- Koebel, 2017). This is especially true of nuclear policy, where public fears and alarmed news reporting can initiate chain-reaction crises instigated by mistakes or misperceptions. To shed light on this issue, this article first overviews public debate and discussion on some frequently expressed beliefs about various features of Pakistan's nuclear power system. These features are evaluated with reference to published accounts from open sources. Second, safety measures under consideration and actual implementation are reviewed. Finally, a comparison is made of both sets of data, marking where discrepancies between myth and reality may impact public security.

A country's socio-political environment and frame of reference are influenced by general understanding of how the world works and how security is distinct from defence. Since operational security in nuclear technology (both military and civil) rests largely on secrecy and

deception, myths play a very important role. They can be destabilising if pervasive, believed, and respected by security officials. There is some justification for public concern in Pakistan about the security risks posed by the rapid expansion of its nuclear arsenal. After all, these weapons are intended to deter a large conventionally superior neighbour with a well-founded professional military, and a track record of both encroachments and wars since partition in 1947. The asymmetric security relationship is not compatible with attitudes of delusional superiority, contempt, or negligence. At the other end of the spectrum, the widely reported fears of a 'country willing to fuel militancy and 'the most dangerous country in the world' probably do not figure prominently in the waking conversations of millions of Pakistanis (Russell Waits, 2007). It may not even necessarily form part of the threat assessment going into operational planning by field-grade Pakistani military officers. And then there is a lot in-between, much of it deserving careful evaluation in the light of open-source evidence, security's own tested repertories of tactics, and ongoing economic, historical, and legal processes.

It has long been suggested to policymakers in Islamabad and elsewhere that the simple provision of widely scattered briefings to shine more light on various taboo subjects might allay public fears and loosen conspiracy theories about an 'unnamed agency' or the machinations of some third party or multinational corporations. The journalists' aspiration that reliable information might be more frequently released about sensitive political, strategic, and economic events has little hope of wider resonance or being adopted. Genuine information about actual public safety activates or security policy does, of course, leak out from time to time, and it can effectively control the proliferation of a news snooze story for at least a few days, until the next information vacuum is filled with prattle and gossip.

Common Myths about Nuclear Security in Pakistan

Despite the concerns of many nonproliferation evangelists in the United States, Pakistan has rather successfully managed the safety and security of its nuclear assets. Nuclear weapons security in Pakistan started becoming a critical concern for the policy makers and academia, and they doubted the management of the nuclear assets of the country. However, a careful and serious study of the measures taken, enforced and in force in Pakistan to look after its nuclear assets, this concern does not get any ground. Security of nuclear assets in Pakistan has, over the course of time, turned into a topic of debate and discussion in policy making circles and academia. The accelerated debate and discussion relative to the security of nuclear assets began following the Pakistani and Indian nuclear tests in May 1998. Images of a nuclear arms race following the seventh series of Indian nuclear tests in May 1998 emerged in the western capitals and a central debate has been on the adequate 'survivability' of the Pakistani nuclear assets (Zubair et al., 2024).

Meanwhile, the accelerated debate and discussion regarding security of Pakistani nuclear assets can be traced to proliferation concerns regarding future cooperation between Islamabad and some Third World states or Islamic fundamentalist organizations. The decision of the Bush administration to conclude a civil nuclear cooperation agreement with India, especially in 2008, reopened a debate on nuclear tests by discussing the credibility of crisis stability in South Asia. In part, the debate revolves over myths rather than realities. Nine myths include: (1) Pakistan's conventional weapons appear sustainable (2) False beliefs regarding the strategies of the terrorist organizations (3) Misconceptions regarding the impending domestic threats (4) Ongoing doubts about professional Pakistani military (5) Exaggerated fears for nuclear proliferation (6) Long-held suspicions of 'loose nukes' (7) Confusions about the geographic location of weapon storage sites (8) Fanciful arguments about the vulnerability of nuclear facilities to extremists (9) The die-hard conviction that it is a matter of time before the 'Islamist' take-over of Islamabad.

10. Realities of Nuclear Security Challenges

Studies on Pakistan's nuclear security draw a grim picture. It is unfortunate that some Western scholars, and also some in India, find it a subject of their interest to project Pakistani nuclear weapons as something very vulnerable. It is mind-boggling to a Pakistani when such views are expressed. Of course, no system is foolproof and there is always a possibility of someone, somewhere, hitting a target. This much is true about even the most advanced nuclear weapons systems in the world. Nobody can guarantee that. But in recent years Pakistan has been doing her best to make the system foolproof. The security arrangements are stringent and all possible measures have been taken to ensure the safety and security of nuclear assets (Torres et al., 2012). In a way, the controversial nature of safety issues in Pakistan is good for how many adversaries will seriously think of looking for inroads when a myth is perpetuated that it can be done easily.

Undoubtedly it breaks various cans of worms on the issues of nuclear command and control in a South-Asian scenario; something that got both India and Pakistan in the news for the better part between last century's atrocious decade. Eventually, knowing more about the security environment should help understand and evolve strategies for improved nuclear safety. The following broad principle can be leveled while looking at the actual existing challenges towards nuclear safety and possible mitigation strategies. A dynamic composite response strategy needs to be the approach to overwhelming challenges thrown up by extremists, spies, domestic insurgencies, sub-optimal nuclear command and control, peripheral augmenting shortage of resources, ever-evolving threats to shipping data and possible illicit use of nuclear energy, diversion of fissile material, the potential trading of weapons and technology, and ticking time-bombs political instability, exacerbated by an inherently weak administration (Xu & Zhang, 2022). The approach has to be adaptive, ever-evolving and considers multi-faceted means (pre-active and proactive) to require mechanisms. Possible findings in this realm will have unknown implication which might consequently seek a readjustment, not just from Pakistan's standpoint, on how nuclear safety in South Asia or even globally is viewed.

Role of Non-Governmental Organizations

This particular sub-section of the comprehensive study endeavors to thoroughly probe into the significant agenda, essential role, and valuable contributions made by Non-Governmental Organizations in order to enhance and strengthen nuclear security within the context of Pakistan. It begins with a detailed introduction that emphasizes the crucial importance of NGOs for effective policy advocacy as well as for increasing public awareness on relevant issues; furthermore, it seeks to examine in depth how the diverse NGO community in Pakistan is proactively engaging with and addressing various nuclear security-related challenges and issues. The NGOs are actively providing critical policy advocacy and raising public awareness; they specifically focus on the emerging risks and challenges associated with nuclear safety awareness, all while diligently working towards the promotion of best practices in this vital area. This thorough scrutiny reveals that a variety of NGOs across Pakistan are emerging with the specific aim of concentrating on these essential aspects of nuclear security and safety awareness, reflecting a growing commitment to addressing these pressing issues (Khan & Rahman, 2025). It further explores the way the NGO community is working to address these challenges and concerns. The collaboration of NGOs with governmental and official nuclear security setup is also discussed, besides examining to see if there is any room for further synergy. An overview of those projects/programs being run by the NGOs, which have effectively worked in enhancing the public understanding on nuclear issues and lead to the improvement of the policies and practices, is also discussed. The challenges or barriers coming into way of the NGOs to effectively lobby the desired policies and circulate effective work practices on nuclear security are further probed; and the extent to which these interventions and engagements have successfully developed a public discourse on nuclear safety/security issues is also scrutinized. While reflecting on its conclusion, the sub-section stresses a need that in a nuclearized South Asia, it is essential for the NGOs to emerge as key stakeholders in the discourse and implementation of nuclear security policies and practices (Taylor, 2019). It finds that over the last several years, NGOs are increasingly engaged in a myriad of activities focusing on this subject, having impacts directly or indirectly, in shaping the determinants of security. Finally, while concluding the sketch, it is submitted that any effective measure to enhance and inform nuclear security regime would be incomplete without engaging the relevant NGOs.

Conclusion

The challenge for Pakistan lies in continuously evolving clearly defined and stringent security frameworks based on realistic threat perceptions. In order to have foolproof security arrangements, the Government of Pakistan has established the Strategic Plans Division (SPD) to provide a second layer of security for the safety of the nuclear weapons against any internal and external threats. The SPD has established its own Intelligence Bureau with a special nuclear team that operates round the clock to keep track of the safety and security of the nuclear weapons. The Personnel Reliability Program (PRP) is another confidente program in place to keep under observation the working of the Army and Air Force personnel who are directly connected with the nuclear weapons. In addition, the Pakistan Navy has also implemented its own version of the PRP. Nuclear installations and the nuclear weapons complex have been placed under the command of the Strategic Plans Division of the Services. The physical security of the strategic assets is under trained and specialized Pak-Army Commandos while the site security is under the specialized Rangers. There is a robust response for unforeseen events in case of any external threats in the shape of a special SSG Division equipped with latest technology to cope with any hostile actions for any of the strategic assets.

A very effective and efficient accountability code is working in the KRL and the Khan Research Laboratories along with a regular monitoring program. Moreover, specially trained operatives of the Security Division of the ISI are also prowling in the Kahuta Laboratories and surroundings to keep track of any illegal operation. Similarly, each and every transportation of nuclear fuel from the Dr. A.Q. Khan Research Laboratories for utility plant in the Sheikhupura District is guarded by a special SSG Division that ensures the safety of the material. Additionally, the material is shielded in strong canisters that can easily wither away any terrorist attack. The model of country's entire nuclear safety and security measures was presented to the National Academic Leadership Summit and it was applauded at the National and International level.

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