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巴基斯坦常驻代表团 2020 年 2 月 10 日 关于《巴基斯坦核安保制度》的信函

1. 总干事收到巴基斯坦常驻代表团 2020 年 2 月 10 日的信函，随附了题为《巴基斯坦核安保制度》[1] 的文件。该文件系巴基斯坦政府值原子能机构 2020 年 2 月 10 日至 14 日举行第三次“核安保：保持和加强努力”国际大会之际发表。

2. 谨此按请求分发上述信函及题为《巴基斯坦核安保制度》的文件，以通告全体成员国。

[1] 本文件在线版提供《巴基斯坦核安保制度》的英文文本。

巴基斯坦常驻国际组织代表团

奥地利维也纳

编号：7-7/2016　　2020 年 2 月 10 日

维也纳
国际原子能机构
总干事
拉斐尔·格罗西先生阁下

尊敬的总干事：

我谨与您共享题为《巴基斯坦核安保制度》的文件，该文件系巴基斯坦政府值原子能机构 2020 年 2 月 10 日至 14 日举行第三次“核安保：保持和加强努力”国际大会之际发表。

该文件由巴基斯坦外交部长作序，详细介绍了巴基斯坦国家核安保框架及其多年来采取的相关措施。该出版物力求重申巴基斯坦对于加强和维持核安保目标的承诺。

我仅此补充，《巴基斯坦核安保制度》符合《核材料实物保护公约》及其 2005 年修订案、原子能机构 225/Revision5 号《情况通报》、原子能机构《放射源安全和安保行为准则》及其两份补充导则文件，并以这些文件为指导。

展望未来，巴基斯坦将继续受益于原子能机构根据其任务在核安保领域开展的工作，并为其做出贡献。在这方面，请相信我个人愿意提供支持。

若您能安排将本信函连同随附文件作为《情况通报》分发给原子能机构全体成员国，我将不胜感谢。

谨此，[手写]

大使
Mansoor Ahmad Khan
[签名]

PAKISTAN'S
NUCLEAR SECURITY REGIME

Ministry of Foreign Affairs
Government of Pakistan

PAKISTAN'S
NUCLEAR SECURITY REGIME

Ministry of Foreign Affairs
Government of Pakistan

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This publication can be downloaded at no cost at www.mofa.gov.pk

FOREWORD

Nuclear Security is a journey and not a destination. It requires relentless vigilance and preparedness at various levels without any complacency.

Nuclear security is a state responsibility and it receives the highest level of attention in Pakistan in accordance with our domestic and international obligations.

Pakistan has established a comprehensive and effective national nuclear security regime which is at par with international standards and guidelines. The regime is based on an extensive legislative and regulatory framework governing the security of nuclear materials, radioactive substances, associated facilities and activities. This is backed by strong institutions and organizations with the requisite authorities, resources and trained manpower for effective implementation. Our affiliated institutes at Centre of Excellence on nuclear security have transformed into an international hub for imparting training and sharing best practices in the area of nuclear security.

Pakistan's commitment towards ensuring a comprehensive national nuclear security regime is reflected in this document titled "Pakistan's Nuclear Security Regime", which was first published in the form of a brochure on the sidelines of the second International Conference on Nuclear Security organized by the International Atomic Energy Agency (IAEA) in 2016. This second version documents the steps taken since 2016 and is being published on the occasion of the third International Conference on Nuclear Security, being held in Vienna in Februray 2020. I hope it will serve as a useful resource on the progress made by Pakistan in nuclear security.

The role of nuclear energy in Pakistan's national energy mix is set to significantly increase in the coming years. As we expand our nuclear energy program, Pakistan will be following the highest levels of nuclear security.

We believe, an increased focus on nuclear security should further facilitate international cooperation in peaceful uses of nuclear energy.

Sohail Mahmood
Foreign Secretary
Islamic Republic of Pakistan

INTRODUCTION

Pakistan believes that nuclear security demands constant vigilance, perpetual preparedness and zero complacency. Pakistan, therefore, accords utmost importance to nuclear security as a prime national responsibility. Over the years, Pakistan has established a comprehensive and effective national nuclear security regime, which covers nuclear material and other radioactive materials, and associated facilities and activities throughout their lifecycle. In order to remain abreast with the emerging threats and challenges, national nuclear security regime is regularly reviewed and updated in the light of national obligations, the International Atomic Energy Agency (IAEA) guidance documents and international best practices. A robust nuclear security culture has evolved over a period of time that helps in strengthening and sustaining the national nuclear security regime.

NUCLEAR SECURITY

Nuclear security is the prevention of, detection of, and response to, criminal or intentional unauthorized acts involving or directed at nuclear material, other radioactive material, associated facilities, or associated activities.[1]

The responsibility for nuclear security within a State rests entirely with the State, which has to ensure the security of nuclear material, other radioactive material, associated facilities and activities under its jurisdiction. A comprehensive nuclear security regime is therefore, much more than the physical aspects of nuclear security.

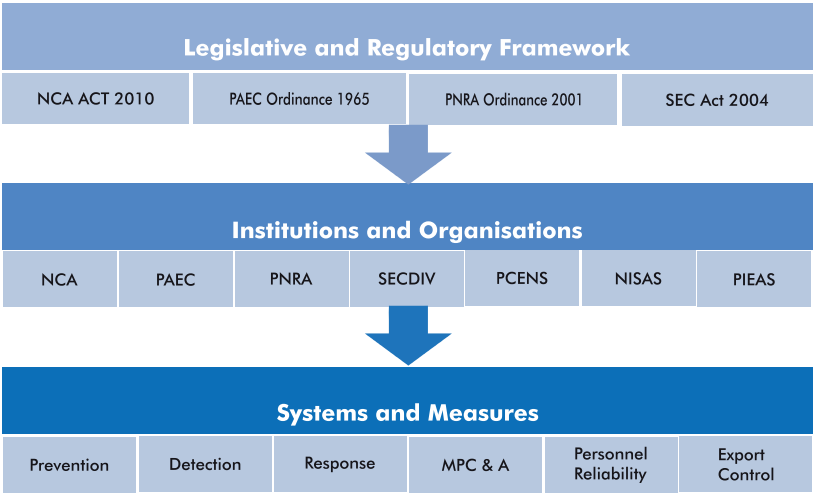
[1]Nuclear Security Series Glossary Version 1.3 (November 2015), Division of Nuclear Security, IAEA

THREE PILLARS OF PAKISTAN'S NUCLEAR SECURITY REGIME

Legislative and regulatory framework and administrative systems and measures governing the security of nuclear material, other radioactive material, associated facilities and activities.

Institutions and organizations within the State responsible for ensuring the implementation of the legislative and regulatory framework and administrative systems of nuclear security.

Nuclear security systems and measures meant for the prevention and response to nuclear security events.[2]



[2] Objective and Essential Elements of a State's Nuclear Security Regime, IAEA Nuclear Security Fundamentals, IAEA Nuclear Security Series No. 20

LEGISLATIVE AND REGULATORY FRAMEWORK

The legislative and regulatory framework includes establishing independent regulatory bodies with adequate legal authority to fulfill their assigned nuclear security responsibilities. These include the National Command Authority (NCA), Pakistan Atomic Energy Commission (PAEC), Pakistan Nuclear Regulatory Authority (PNRA) and Strategic Export Control Division (SECDIV).

Legislative Framework

Pakistan has developed comprehensive legislative framework to manage nuclear and radiological matters. In order to cover the entire spectrum of activities, the NCA Act was promulgated in 2010. The Act has a wide jurisdiction and provides adequate legal authority to regulate activities of various entities working within its domain.

Pakistan Atomic Energy Commission (PAEC) Ordinance

The ordinance was promulgated on 27 May 1965. Under this Ordinance, PAEC became a statutory body with requisite powers subject to the provisions of the Ordinance.

Pakistan Nuclear Regulatory Authority (PNRA) Ordinance

The ordinance was promulgated on 22 January 2001. Under this ordinance, PNRA was established with the mandate to regulate the nuclear and radiation safety and nuclear security aspects of nuclear installations and radiation facilities; it grants authorization; issues licenses; and inspects all such facilities to verify that regulations are being properly implemented.

Export Control Act on Goods, Technologies, Material and Equipment related to Nuclear and Biological Weapons and their Delivery Systems

Strategic Export Control Act was promulgated on 23 September 2004. It strengthened export controls on sensitive and dual use goods/technologies related to nuclear and biological weapons and their means of delivery.[3]

Salient Features - Strategic Export Control Act

- Controls over export, re-export, trans-shipment and transit of goods, technologies, material and equipment covered under the National Control List.
- Wide jurisdiction (also includes Pakistanis visiting or working abroad).
- Provide for an authority to administer rules and regulations framed under this legislation. Also provides for the establishment of an Oversight Board to monitor the implementation of this legislation (SECDIV).
- Prohibition on diversion of controlled goods and technologies to unauthorized use.
- Control over transfer of technology by any means.
- Control lists and catch-all provisions.
- Licensing and record keeping provisions.
- Penal provisions: Up to 14 years imprisonment and Rupees 5 million fine or both, and on conviction, confiscation of offender's property and assets.

Regulatory Framework

Pakistan has a comprehensive regulatory framework to govern security of nuclear material, other radioactive material, associated facilities and activities. The authorization/ licensing, review and assessment, development of regulatory framework, inspection and enforcement processes ensure that nuclear facilities remain under strict regulatory control and in compliance with the national regulations and licensing conditions throughout their life-cycles.

Safe and secure transportation of radioactive material in the country is covered by national regulations on transport of radioactive material that are in line with the international requirements. Import and export of all radioactive materials/consignments also require authorization from the national regulator.

[3] Pakistan is a State Party to the Biological and Toxin Weapons Convention (BTWC) and Chemical Weapons Convention (CWC) since 1974 and 1997 respectively. Pakistan has also enacted the Chemical Weapons Convention (Implementation) Ordinance in 2000 and subsequent Rules in 2010.

In order to ensure physical protection of nuclear material against unauthorized removal during its use, storage and transport and for protection against sabotage of nuclear installations, PNRA has promulgated "Regulations on Physical Protection of Nuclear Material and Nuclear Installations — (PAK/925)" on 20 April 2019.[4] This regulation takes into consideration IAEA's Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Rev.5) and the obligations of Convention on the Physical Protection of Nuclear Material (CPPNM) and its 2005 Amendment, international best practices and national experiences.

PNRA "Regulations on Security of Radioactive Sources - (PAK/926)" was promulgated on 15 August 2018,[5] which is harmonized with the provisions of the IAEA's 'Code of Conduct on Safety and Security of Radioactive Sources' and its two Supplementary Guidance on 'Import/ Export of Radioactive Sources' and 'Management of Disused Sources'.

Salient Features - PNRA Regulations PAK/925

- Licensee to develop capabilities to detect, delay and respond to neutralize threats up to and including the Design Basis Threat (DBT) – Regulation.8(5).
- Control measures in inner area, protected area and limited access area as well as during transport–Regulation 25.
- Protect technical means and procedures for access control against manipulation, falsification, or other form of compromise – Regulation 23(5), 24(2) (g) (iv).
- Control measures for protection against sabotage of equipment/component in vital areas – Regulation 29(1).
- Protect the computers, communication systems and networks associated with functions important-to-safety and physical protection from cyber attacks – Regulation 19.
- Physical protection system shall be designed to deny unauthorized access of persons or equipment to the targets, to minimize the opportunity of insiders – Regulation 28(2) (d).
- Establish, maintain and implement insider mitigation measures to monitor the initial and continual trustworthiness and reliability of individuals – Regulation 18.
- Detection of unauthorized action by continuous surveillance, through two-person rule or other equivalent means, whenever an inner area is occupied – Regulation 25(2) (f).
- Safety and Physical Protection Interface are assessed and managed in a manner to ensure that they do not adversely affect each other and they are mutually supportive – Regulation 10 (1).

[4] PNRA "Regulations on Physical Protection of Nuclear Material and Nuclear Installations — (PAK/925)", https://www.pnra.org/upload/legal_basis/regulations/PAK-925.pdf

[5] PNRA "Regulations on Security of Radioactive Sources - (PAK/926)", https://www.pnra.org/upload/legal_basis/regulations/PAK-926.pdf

INSTITUTIONS AND ORGANIZATIONS

National Command Authority (NCA)

The nuclear security regime in Pakistan is governed by the NCA, which is a well-defined, robust nuclear command and control structure and is chaired by the Prime Minister. It is the apex decision making body for all nuclear matters including nuclear security. Several legal, administrative and institutional measures have been put in place that continue to work in synergy to achieve national objectives. NCA develops technical solutions, Personnel Reliability Programme (PRP) and elaborate intelligence and security setups to deal with issues related to nuclear security, non-proliferation and countering WMD terrorism. Two dedicated organizations, namely Security Division and Intelligence Division, function under the NCA with an objective to ensure overarching nuclear security with regards to nuclear and radiological materials, associated facilities through a multi-layered defence and covers all kinds of threats that include insider, outsider and cyber.

Pakistan Atomic Energy Commission (PAEC)

PAEC is the operator of nuclear facilities in Pakistan. It is operating five nuclear power plants (NPPs). Two more NPPs are under construction. It has established three research centres for application of nuclear technology in agriculture and one for genetic engineering.

Eighteen nuclear medicine and oncology centres function under PAEC and it is actively involved in the national cancer awareness, prevention, and diagnostics and treatment programme.

PAEC Nuclear Medical Centres (NMCs) are contributing up to 70% in the treatment of total cancer patients in the country. Over one million visits are made to these medical centres each year. Physical protection measures in these medical centres have been upgraded with the assistance of IAEA. These upgrades include intrusion detection system and access control system including CCTV, central alarm system, monitoring station and entry/ exit control points.

PAEC has established academic and on-the-job training institutes namely, the Pakistan Institute of Engineering and Applied Sciences (PIEAS), Karachi Institute of Power Engineering (KINPOE) and CHASHNUPP Centre of Nuclear Training (CHASCENT).

Pakistan Institute of Nuclear Science and Technology (PINSTECH) is the premier R&D setup within PAEC. It has some of the most advanced operational research facilities and carries out multidisciplinary research. The scientists and engineers at PINSTECH also participate actively in joint research projects with various international scientific organizations, including IAEA.

Pakistan Nuclear Regulatory Authority (PNRA)

PNRA is the competent and independent body for the regulation of nuclear safety, physical protection, radiation protection, transport and waste safety in Pakistan. PNRA plans, develops and executes comprehensive policies and programmes for the protection of life, health and property against the risk of ionizing radiation, and regulates the radiation safety. PNRA also maintains a national register for all categories of radioactive sources. PNRA has an ongoing and active cooperation with various international institutes and organizations to improve its regulatory functions and to enhance competence of human resource.

Strategic Export Control Division (SECDIV)

SECDIV was set up in 2007 as part of the Ministry of Foreign Affairs to administer export controls. An Oversight Board was also set up in 2007 to monitor the implementation of Strategic Export Control Act 2004, including the formation and functioning of SECDIV. The National Control Lists that are periodically reviewed (Fourth revision was issued on 5 July 2018 – INFCIRC/928)[6] are consistent with the lists and scope of export controls maintained by the Nuclear Suppliers Group (NSG), Australia Group (AG) and Missile Technology Control Regime (MTCR). SECDIV held an international export control seminar in 2018 in which 240 experts participated from 49 states.

[6] SECDIV, "4th Revised National Control Lists", http://www.secdiv.gov.pk/uploads/Control_Lists_4th-f55d.pdf

SYSTEMS AND MEASURES

Pakistan has deployed nuclear security systems and measures in accordance with national and international obligations. Multi-layered defence is the cornerstone of Pakistan's nuclear security architecture. A concept of 5Ds is followed to respond to these threats. These 5Ds include: deter, detect, delay, defend, and destroy

Physical Protection

Physical protection of nuclear material and nuclear facilities is one of the important aspects of Pakistan's nuclear security architecture. Performance based regulatory approach has been implemented at all nuclear installations that is based on the current evaluation of threat/DBT.

Pakistan has deployed modern technological solutions for physical protection measures including detection, delay and response at nuclear and radiation facilities and for transportation of nuclear and radioactive material. Physical protection measures are comprised of personnel, equipment and procedures intended to prevent, detect, and extend delay and appropriate response to neutralize a malicious act. This includes installation of intrusion detection systems, access control systems, delay barriers and search systems and Central Alarm Station. Physical protection measures are deployed in security areas that include limited access area, protected area, isolation zone and vital areas at nuclear facilities. In addition, the land-based and sea-borne response capabilities of the response forces have also been strengthened.

National Nuclear Detection Architecture (NNDA)

Pakistan has established an effective NNDA to regulate authorized imports and exports as well as to prevent illicit trafficking of nuclear and other radioactive materials.

Designated entry/ exit points of the country have been equipped with hand held radiation detection equipment as well as Radiation Portal Monitors (RPMs) to detect and prevent illicit trafficking of nuclear and radioactive material under the Nuclear Security Action Plan (NSAP).

An integrated Cargo Container Control (IC-3) facility is functional at Port Qasim near Karachi since 2007. This port is Container Security Initiative (CSI) compliant.

Technical Support Unit has been established to provide assistance to national stakeholders in alarm assessment of detected consignment at entry/exit points and acceptance testing/maintenance of radiation detection equipment. Radiological Assistance Groups (RAGs) have also been established which provide on-site support for radiation dose rate measurements, isotope identification of unknown sources, surface contamination checks, and large-scale search and rescue of radioactive material out of regulatory control.

Response and Mitigation

Nuclear Emergency Management System (NEMS) has been put in place to respond and manage nuclear or radiological emergencies. Under this system, the technical expertise would be provided by PAEC and PNRA; administrative coordination would be done by National Disaster Management Authority (NDMA); while NCA would offer support to address nuclear or radiological emergency. NEMS aims at addressing complete spectrum of nuclear and radiological emergencies and issues of illicit trafficking with all stakeholders on board. It is based on ownership of responsibility, centralized control and decentralized execution.

Nuclear and Radiological Emergency Support Centre (NURESC) is the implementing arm of NEMS. It is the focal point at national level to deal with entire spectrum of nuclear and radiological emergencies. NURESC coordinates and facilitates activities of its geographically deployed tools which include: Radiological Assistance Groups, Hazard Assessment and Advisory Teams, Aerial Survey and Surveillance Teams, and Radiation Medical Assessment Teams. It also deters, detects, prevents and combats any attempt at illicit trafficking of nuclear and radiological materials through enhancing capacity of National Nuclear Detection Architecture. NEMS dovetails other national stakeholders and response organizations and works with them hand in glove.

National Radiation Emergency Coordination Centre (NRECC) coordinates for the response to nuclear accidents or radiological emergencies, both nationally and abroad. NRECC is a fully functional focal point to meet national and international responsibilities set under the obligations of the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, to which Pakistan is a State Party. It is equipped with dedicated and diverse communication facilities, radiation detection equipment, personal protective equipment, mobile radiological monitoring laboratories and technical support teams.

Among other activities, NRECC performs the technical assessment of information received from facilities and evaluation of recommendations for protective measures to ensure the protection of public and environment. It also maintains proportional preparedness in support of licensees and public authorities. NRECC also conducts and participates in different types of exercises/ drills like Communication Test Exercises (COMTEX), Mobile Radiological Monitoring Laboratory (MRML) Exercises, IAEA Convention Exercises (Convex) to test the availability and accuracy of contact points and ability to swiftly and securely exchange information during emergency situation.

Material Protection, Control and Accounting (MPC&A) Programme

This programme is being implemented in accordance with Pakistan's national requirement and international obligations. The goal is to have a holistic approach encompassing physical security, safety, accountability and verification. PNRA has promulgated the "Regulations on Radiation Protection (PAK/904 amendment)" for controlling and regulating the production, manufacturing, preparation, storage, sale, import, and export of scrap/ recycled metal products or other commodities having radiation levels above the natural background.[7]

[7] PNRA "Regulations on Radiation Protection (PAK/904 Amendment)", https://www.pnra.org/upload/legal_basis/PAK-904%20Amendment.pdf

Figure 1 - Chashma Nuclear Power Complex

Figure 2 - Pakistan Institute of Nuclear Science and Technology (PINSTECH)

Figure 3 – Nuclear Medical Centre at Karachi

Figure 4 – Operation of Gamma Camera for Cardiac Scanning

Figure 5: Training at Physical Protection Exterior Laboratory

Figure 6 – Nigerian delegation visit to Physical Protection Interior Laboratory (PPEL) at PNRA

Figure 7 – Training course on Sustainability of Radiation Detection Equipment and expert support capabilities at PNRA

Figure 8 - Pakistan Centre for Nuclear Security (PCENS)

Figure 9- Physical Protection Systems Laboratory – PCENS

Figure 10 - Physical Protection Systems Laboratory – PCENS

Figure 11 - Joint Conflict and Tactical Simulation Laboratory – PCENS

Figure 12 - Training at MEGGITT Weapon Simulator

CENTRE OF EXCELLENCE
PIEAS

Figure 13 - Pakistan Institute of Engineering and Applied Sciences (PIEAS)

Figure 14- PIEAS

Figure 15 - Ceremony for PIEAS as IAEA Collaborating Centre for assistance in nuclear technologies

CAPACITY BUILDING FOR NUCLEAR SECURITY

Nuclear security regime of Pakistan includes not only technological systems, but the human resources needed to manage, operate, administer and maintain equipment. Pakistan has established Center of Excellence (CoE) to facilitate the country in capacity building, human resource development and technical support to all stake holders for effective nuclear security. The CoE is comprised of the following institutions.

- Pakistan Centre of Excellence for Nuclear Security (PCENS, NCA)
- National Institute of Safety and Security (NISAS, PNRA)
- Pakistan Institute of Engineering and Applied Sciences (PIEAS, PAEC)

These three institutions are working together and provide education, training and technical support to all relevant stakeholders in Pakistan.
During the 2012 Seoul Nuclear Security Summit (NSS), Pakistan offered it's CoE to act as a regional and international hub for capacity building of officials and security personnel. Various national and international nuclear security courses are being conducted in collaboration with the IAEA. Participants from more than 40 Member States have attended various trainings through IAEA assistance. More than 6500 personnel including national and foreign participants have been trained at these institutions.

PCENS

PCENS is a state of the art training facility which has been established to train dedicated security force, with a focus on security, intelligence, counter-intelligence and technical training.

Training Areas Offered by PCENS

- **Protective Force and Physical Protection**

  Security Soldier Basic Course, Quick Response Force, Special Response Force, Basic Level Physical Protection Course, Design Basis Threat Training, Vulnerability Assessment and Performance Testing, and, Security of Radiation Sources.

- **Security and Intelligence**

  Nuclear Security Culture, Cyber Security, Security Familiarization Training, Security and Counter-Intelligence and Intelligence Familiarization Training

- **Material Control and Accounting**

  Training on intrusion sensing, alarm communication, alarm assessment, entry control, measurements, radiation monitoring and inventory.

- **Delay and Response**

  Passive and active barriers, engagement, communication to response force, deployment of response force, threat neutralization, Personnel Reliability and transportation of nuclear materials.

PCENS hosted the annual meeting of Nuclear Security Support Centre (NSSC) Network in March 2016. It was the first time that IAEA held NSSC Network meeting outside its headquarters in Vienna. It was attended by over 50 participants from 33 countries

NISAS

NISAS organizes training courses for nuclear safety and security in the regulatory perspective. The NISAS has Nuclear Security Laboratories established according to the IAEA standards. The labs include: Radiation Detection Equipment Lab and Physical Protection Labs. Further, the Technical Support Unit of PNRA provides expert services for training, demonstration, and testing of radiation detection instruments.

Functioning under PNRA, NISAS trains professionals, technicians and managers in the fields of nuclear safety and security and radiation safety. NISAS conducts a range of professional training courses, workshops and on-the-job trainings to build overall competency. During his visit to Pakistan in March 2014, IAEA Director General inaugurated NISAS.

PIEAS

PIEAS conducts academic courses at Masters Level in nuclear security. PIEAS has initiated academic courses in nuclear security to prepare young engineers/scientists to take up nuclear security responsibilities in their future pursuits. Courses on 'Nuclear Security' and 'Physical Protection Systems' are also being run at PIEAS on regular basis. PIEAS has been declared as IAEA collaborating centre on 5 December 2019 to support Member States on research, development and capacity building in the application of advanced and innovative nuclear technologies. In addition to training in the national institutes, scientists and engineers working in PAEC are trained through fellowships, academic trainings and other research activities in different scientific fields with the collaboration of IAEA and other international organizations.

ADHERENCE TO INTERNATIONAL INSTRUMENTS

Conventions

Pakistan is party to various international instruments that are aimed at strengthening national and global nuclear security infrastructure. These include: Convention on Physical Protection of Nuclear Material (CPPNM), the Convention on Nuclear Safety (CNS), the Convention on Early Notification of a Nuclear Accident (Early Notification Convention) and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (Assistance Convention). In March 2016, Pakistan ratified the Amendment to the CPPNM.

Codes of Conduct

Pakistan has also subscribed to the IAEA's "Code of Conduct on Safety and Security of Radioactive Sources" and its two Supplementary Guidance on 'Import/ Export of Radioactive Sources' and 'Management of Disused Sources'. These IAEA Codes of Conduct are also being used as guidelines for regulating radioactive sources.

UN Security Council Resolution 1540 (2004)

It aims to prevent the proliferation of weapons of mass destruction and its delivery systems to non-state actors. Pakistan has been proactively fulfilling its obligations under the UN Security Council Resolution 1540 (2004) and has so far submitted five national reports which provide details of all measures taken to achieve the objectives of UN Security Council Resolution 1540 (2004). In August 2018, Pakistan established inter-Agency Committee for Coordination, Review and Monitoring (CRM Committee), notified vide S.R.O. 1067 (I)/2018 dated 28 August 2018, to effectively implement, supervise and monitor the enforcement of UNSC Resolution's decisions on countering the proliferation of weapons of mass destruction and to ensure their effective implementation.

Pakistan has offered its assistance, including in the form of trainings to interested states and in response to specific requests in those areas where it has gained expertise including those relating to the implementation of UN Security Council Resolution 1540

Pakistan's Offer of Assistance in Nuclear Security Training to Interested States

- Introduction to evaluation of physical protection system effectiveness.
- Implementation of nuclear security recommendations on physical protection of nuclear material and facilities.
- Security of radioactive sources.
- Threat assessment and risk-informed approach for nuclear and other radioactive material out of regulatory control.
- Threat assessment and design basis threat.

INTERNATIONAL COOPERATION

Pakistan and IAEA

Pakistan has been actively participating and contributing in the IAEA efforts to promote nuclear, radiation, transport and waste safety and security as a member of various IAEA safety standard committees, commissions and other related forums/networks. In addition, Pakistan participates in the activities of International Nuclear Event Scale (INES) and International Reporting System (IRS). Pakistan voluntarily participates in IAEA's ITDB programme and continues to support its objectives. It is also actively considering hosting an International Physical Protection Advisory Service (IPPAS) Mission. Pakistan has contributed in the IAEA's Nuclear Security Fund and supports strengthening of IAEA's Nuclear Security Division.

Pakistan also takes part in joint international projects with IAEA, United Nations Scientific Committee on Effects of Atomic Radiation (UNSCEAR), and International System of Occupational Exposure (ISOE) to improve the national infrastructure for radiation protection. Pakistan is member of several IAEA's committees on safety and security including Advisory Group on Nuclear Security (AdSec) and Nuclear Security Guidance Committee (NSGC).

Nuclear Security Summit (NSS) Process

Pakistan has been an active participant in the Nuclear Security Summit (NSS) process aimed at creating awareness at the leadership level about the need to strengthen global nuclear security efforts. It has participated in all the four Summits and made a significant contribution in the process.

Nuclear Security Contact Group (NSCG)

Pakistan has joined Nuclear Security Contact Group (NSCG) to contribute to the advancement of its work to address continuing and evolving nuclear security challenges, with the objectives of advancing implementation of nuclear security commitments and building a strengthened, sustainable and comprehensive global nuclear security architecture.

Global Initiative to Combat Nuclear Terrorism (GICNT)

Pakistan joined GICNT in 2007 and has been proactively participating in its various activities like drafting guidance documents for its Nuclear Detection Working Group (NDWG) and Response and Mitigation Working Group (RMWG). Other activities include participation in plenary meetings, workshops and exercised under the above mentioned working groups for sharing and learning of international best practices.

CONCLUSION

The measures and steps outlined in this document are a demonstration of Pakistan's commitment and contribution to the global objectives of nuclear security. Relying on modern technological solutions and the requisite human resource, Pakistan is fully capable of preventing and responding to the entire spectrum of challenges encompassing physical protection, computer and information security, transport security as well as insider threat mitigation. Pakistan has participated in and contributed to several international processes and mechanisms aimed at strengthening nuclear security.

Pakistan strongly supports the IAEA's central role in coordinating international efforts in providing assistance to Member States, upon their request, for enhancing the security of nuclear and radioactive materials and in coordinating international efforts as new challenges and opportunities emerge. We believe that the Agency's undiminished focus on the promotion of peaceful uses of nuclear technologies, in particular through technical cooperation with the developing countries, can foster better appreciation and ownership for its activities in the field of nuclear security.

In the months and years ahead, Pakistan looks forward to working closely with the IAEA and its Member States to ensure that nuclear security continues to receive the high level attention, appropriate salience in the Agency's work, unfailing vigilance at the national level and robust international cooperation.