

CAPACITY BUILDING IN NUCLEAR SECURITY EDUCATION AND JOB SPECIFIC TRAININGS IN PAKISTAN

Education and training plays a pivotal role in the development and upgradation of overall security system. Specific training and education is necessary as new challenges evolve with time. After 9/11, the world scenario has completely changed in terms of security. With change of threat level, there is a need to improve, strengthen and revise existing education and training infrastructure. Nuclear Security education and training in Pakistan has been designed and delivered for awareness of employees involving in various activities of nuclear power programme, nuclear medical centers, agriculture centers and food industry etc. In this paper, the role of education and training in capacity building in Pakistan will be discussed.

Consequently, there is a dire need for highly qualified experts in nuclear security at the national level, since the responsibility for nuclear security rests solely with a State. At national level, Pakistan has established Centers of Excellence to serve as regional and international hubs for training and disseminating relevant know-how through three institutes: Pakistan Center of Excellence for Nuclear Security (PCENS), the National Institute of Safety and Security (NISAS), and the Pakistan Institute of Engineering and Applied Sciences (PIEAS). Pakistan Institute of Engineering and Applied Sciences (PIEAS) is ranked the No. 1 Engineering Institute of Pakistan by Higher Education Commission (HEC) of Pakistan. PIEAS offered MS (Nuclear Engineering) with specialization in nuclear security. PCENS is a state of the art training facility which offers extensive training on different areas of nuclear security and response. PCENS conducts various international training courses (ITCs) in collaboration with IAEA on nuclear security, inviting participation from foreigners from various countries along with local participants. It also houses a Physical Protection Exterior Lab (PPEL) established by PNRA which includes a range of state of the art physical protection technologies such as intrusion detection and access control equipment used for exterior applications as part of physical protection systems at nuclear facilities. NISAS conducts specialized courses to provide comprehensive training for effective regulatory operations.

Now a days, development of nuclear power programme and other nuclear applications is rapidly increasing worldwide. Due to this view, malicious acts related to nuclear and other radioactive material are prime issues of concern in the world. That is why the security of nuclear and other radioactive material is not limited to countries having developed nuclear programmes, but also equally important to countries having limited nuclear activities and to those countries which plan to expand their nuclear programme in the future. Experts and specialists in the field of nuclear security are needed to achieve the task of protection against any malicious act. Also, it is often seen that competent personnel leave an organization due to superannuation, change in career path and managerial changes. Ultimately, this has a negative impact on the State's capabilities to carry out nuclear security activities in an efficient manner. Moreover, rapid evolution of technology can be attributed to introduction of sophisticated state-of-the art equipment and techniques.

Nuclear security personnel are involved in various assignments in Pakistan, including nuclear security detection, design of physical protection system, operation and maintenance of physical protection system, security contingency management etc. Different nuclear security assignments have different capacity building and training requirements. It is important to ascertain that nuclear security personnel can only perform their assignments effectively if they are given job-specific trainings. This also enhances their technical capabilities and create smooth interfaces with different management systems at a facility. This paper describes a program which is implemented in Pakistan for capacity building of personnel in the field of nuclear security focusing on job-specific trainings which is effective and can be used as a training module for nuclear security trainings.

Key Words: *Capacity Building, Physical Protection, Nuclear Security*

State

Pakistan

Gender

Male

Primary author: Mr AHMAD, ISHTIAQ (Pakistan Atomic Energy Commission (PAEC))

Co-author: Mr AHMAD, ALI (Pakistan Atomic Energy Commission (PAEC))

Presenter: Mr AHMAD, ISHTIAQ (Pakistan Atomic Energy Commission (PAEC))

Track Classification: CC: Capacity building (e.g. human resource development and sustainability, nuclear security education and job-specific performance training including for newcomer countries)