

**वैश्विक नाभिकीय ऊर्जा साझेदारी केंद्र**  
**GLOBAL CENTRE FOR NUCLEAR ENERGY PARTNERSHIP**

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**Regional Training Course on “Design & Evaluation of Physical Protection System for Nuclear Material & Nuclear Facilities”, 18 to 22 November, 2013  
Mumbai, India**

Global Centre for Nuclear Energy Partnership (GCNEP) and International Atomic Energy Agency (IAEA) jointly organized the Regional Training Course (RTC) on “Design and Evaluation of Physical Protection System of Nuclear Material and Nuclear Facilities” during 18 – 22 November, 2013 at Hotel Regenza by Tunga, Navi Mumbai.

The purpose of the course was to familiarize participants with current concepts and technologies in the area of physical protection so as to enable them to initiate and operate appropriate security programs in their respective countries that are in line with the physical protection requirements laid down in the Convention on the Physical Protection of Nuclear Material as amended in 2005 and in Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Revision 5) (IAEA Nuclear Security Series No. 13, Vienna, 2011).

The course was intended mainly for persons who were responsible for designing and/or assessing physical protection system. This could include operators and managers of such systems.



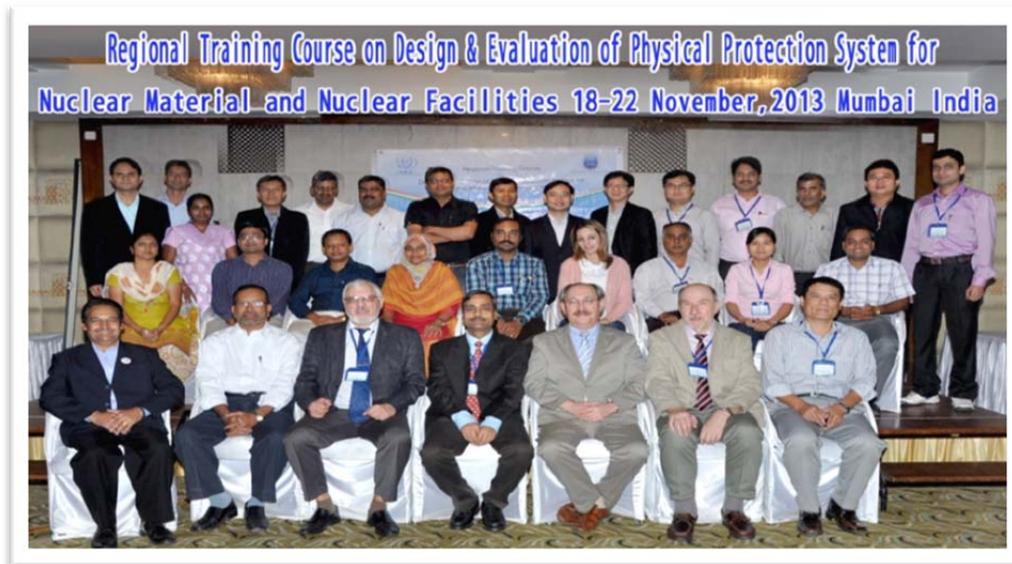
The training course was organized with 29 lecture sessions and 3 workgroup exercise sessions to cover wide ranging topics on Defining, Designing and Evaluation of Physical protection system for nuclear material and nuclear facilities. Various topics under nuclear security like nuclear security technologies, security & control of radioactive material, security culture, safety & security interface, response etc. were covered in this training course. The training course also included three work group exercises on i) Defining requirement of PPS for a hypothetical facility ii) Designing PPS for addressing the identified threat and target and iii) Evaluation of existing / designed PPS, redesign and then re-evaluation of the newly designed PPS for the facility.

A total of 22 participants took part in the training course. There were 11 foreign participants - 2 from Bangladesh, 3 from Indonesia, 1 from Jordan, 1 from Republic of Korea, 1 from Malaysia and 3 from Vietnam. The training course was attended by 11 Indian participants - 2 from NPCIL, 1 each from HWB, ECIL, IGCAR, AERB, NFC and 4 from BARC (including outstation units of BARC).

Two volumes of Course Material, containing more than 800 pages of the handouts of the presentations as well as the detailed lecture notes and one volume of exercise book containing

hypothetical nuclear power plant facility, exercise data etc. were also provided to all the participants. A DVD containing all the presentations, detailed lecture notes, design & evaluation software, few important documents published by IAEA on Nuclear Security and related topics, details of participants and faculty members, some course photographs etc. were also distributed to all the course participants and faculties.

A total of 14 faculty members were involved for deliberation of different lectures and conducting the work group exercises. There were 3 foreign faculty members: 1 from IAEA, 1 from Russian Federation and 1 from Ukraine. 11 faculty members from India took part in this training course.



Participant's feedback suggested that the training course was well organized and overall the program was very valuable. Most participants also felt that the lessons learnt in the training course will be very useful for them and that the lectures were very useful in understanding the subject. Printed presentation material, lecture notes and other technical documents provided were well appreciated by everyone and they found it very informative. Based on the feedback of participants, it is recommended that in future such programs should be of longer duration and should include more work group exercises.