

Implementing a Tabletop Exercise (TTX) for assessing PPS' efficiency in National Center for Scientific Research "Demokritos"

The paper describes the conduction of a tabletop exercise at the premises of NCSR Demokritos, in order to examine the efficiency of the Physical Protection System against external adversaries. The work forms part of the activities of the group within the framework of the IAEA CRP J02006 "Enhance the Effectiveness of Nuclear Security at Research Reactor and Associated Facilities" and in particular Task 1 that assessed methodologies developed by the NUSAM CRP as applied to RRAFs.

The objectives of the TTX were 3-fold:

- Contribute to the continuous training of Security Personnel at N.C.S.R. Demokritos,
- Evaluate the implementation of Security Procedures and the Response by Security Personnel during an Emergency Scenario that included external threats,
- Determine the Weak Points and Vulnerabilities in the PPS and the Security Procedures of the facility.

Implementation

For the implementation of the TTX, the Sandia TTX Methodology was used. The TTX took place in 2 daily workshops. Participants were exclusively selected by N.C.S.R. Demokritos Security Personnel. They were divided in two Teams, Red Team (adversaries) and Blue Team (protective forces). Red Team picked up their attack scenario. Their weapons characteristics were chosen from a list of available equipment. They had also to select types of vehicles. Blue Team manned their ordinary posts and followed the Emergency procedures already established, using their everyday operational equipment and vehicles. For the purpose of the TTX, all the appropriate charts described in Sandia TTX Methodology were used. Also charts depicting Access Delay Times in fences/gates, Penetration Times in walls/doors, Cutting Rates, Probability of Detection and all the necessary info described in RTC 2016 on Physical Protection of Nuclear Material & Nuclear Facilities training material, were advised.

Comments

Upon TTX completion, enough time was devoted for a thorough discussion between the participants and the organizing team focused mainly in comments, proposals and upgrades concerning the existing PPS and its Safety Procedures.

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Track Classification: CC: Good practices in the development and execution of nuclear security exercises (e.g. tabletop, drills and field exercises);