Chapter 16
The Synergy Between Cyber and Nuclear Security. Case Study of Moldova

Aurelian Buzdugan and A. Buzdugan

Abstract Cyber security is recognized as an intrinsic part of the nuclear security due to the numerous embedded computers used in the civil nuclear domain in systems such as physical security, industrial control systems or material accountancy databases. In present these domains have developed however separate regulatory frameworks. This has led to the situation where the cybersecurity related assessment for the nuclear and radiological (NR) has become an additional function of the regulatory authorities in the NR domain. This is also the case of Republic of Moldova.

We will discuss in this paper the regulation which specifies the minimum cyber security requirements across the public institutions [1], which includes as well civil NR operators. We will reflect the current state of cyber security in the nuclear and radiological domain from the legislative and technical perspective. We believe the approval of these requirements will lead to an increased level of cyber security at a national level, as well as will facilitate the NR regulation process in terms of cyber security aspects. The minimum cyber security requirements will also provide clear technical guidance for all entities, including the ones from the nuclear and radiological domain, in order to apply these controls within their infrastructure. In addition, the document contains requirements for security testing, design basis threat and inclusion of cyber security requirements in all processes in the organization. We will also refer to the approved Regulation on Physical Security on Nuclear and Radiological Activity [2], which takes into account the increasing cyber security role upon designing, maintenance, inspection and authorization processes of a physical security system for the NR operators.

A. Buzdugan (✉)
National Nuclear Security Support Center, Technical University of Moldova, Chisinau, Republic of Moldova

A. Buzdugan
National Nuclear Security Support Center, Technical University of Moldova, Chisinau, Republic of Moldova

Technical University of Moldova, Chisinau, Republic of Moldova