

International Conference on Safety and Security of Radioactive Sources: Accomplishments and Future Endeavours (CN-295)



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Safety plan as a mandatory document for obtaining a license to perform radiation activities

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The Law on Radiation and Nuclear Safety and Security of the Republic of Serbia [1] regulate activities of radiation and nuclear safety and security, conditions for performing activities with radiation sources, acting in the situation of planned, existing, and emergency exposure to ionizing radiation to protect individuals, population and environment from the harmful effects of ionizing radiation.

The Radiation Unit, Gamma radiation facility in the Vinča Institute, Belgrade –Serbia, provides commercial services to industry mainly in the fields of sterilization of medical devices, food irradiation, and modification of polymer insulators. The facility has a maximum capacity of 25.000 m³ irradiated products per year. The facility core is cobalt-60 gamma irradiator with wet storage working in batch mode. The current activity of the source is around 100 kCi. The facility is designed for the maximum activity of 1MCi.

Radiation activities performed in the Radiation Unit are industrial sterilization and conservation; and scientific research. The radiation Unit must have licenses to perform both of these radiation activities. This license is issued by the Serbian Radiation and Nuclear Safety and Security Directorate.

One of the necessary documents for issuing a license is the Safety Plan. Safety Plan is a plan that defines the scope, objectives, and safety activities of radiation sources and associated facilities, based on risk assessment. Based on the Law on Radiation and Nuclear Safety and Security of Serbia, the Security Plan must contain:

- 1) description of security rates;
- 2) project of the system of physical and technical protection;
- 3) description of the area, plant, and other facilities in the area and the protected material with the attached categorization of materials;
- 4) list of internal documents related to security;
- 5) persons responsible for security;
- 6) action plan in case of a security event;
- 7) manner and plan for evaluating the efficiency of the security system.

This paper describes the challenges in the development of the Security Plan encountered by institutions that perform radiation activities. A different approach to the development of the Plan for industrial sterilization and scientific research is presented. The aim is to describe the coordination between the radiation facility and the national competent authorities for the safety and security of radioactive sources; as well as the exchange of experiences in the development of legislative and regulatory frameworks (especially Safety Plan) for radioactive sources between conference participants.

References:

- [1] The Law on Radiation and Nuclear Safety and Security, Official Gazette of the Republic of Serbia, 95/2018 and 10/2019

Country OR Intl. Organization

Serbia

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