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



Contribution ID: 32

Type: Poster

RADIATION RISK MINIMIZATION

Tuesday, 21 June 2022 16:15 (15 minutes)

Risks are generally approached intuitively with the sole objective of minimizing its consequences. However, the mechanisms for achieving it are often unknown. Although the actions to reach this main goal are apparently simple, in this study some relevant complexities are analyzed. As an initial premise, it must be remembered that all human activities, including life itself, carry some type and degree of implicit risk. Consequently, risk is also a ubiquitous factor in radiation and nuclear applications. Exposed workers perceive the risk according the types and activities of the radiation sources existing at their workplaces, as well as the processes and operations they have to carry out. On the other hand, members of the public can only estimate the level of risk from the information provided by the operators. However, the various modalities under which radiological risk may arise necessarily converge on a given radiation dose. A systematic approach involves characterizing the exposure scenarios in order to quantify the related risks. Subsequent analysis will eventually allow a protective methodology to manage and minimize the risks through technical solutions. Also, given the transversality of principles and objectives, this study proposes to apply similar methods in the fields of Nuclear Safety (including Radiation Protection) and Security (also called Physical Protection) with the aim of unifying concepts, criteria and solutions.

Country OR Intl. Organization

Chile

Primary author: Mr BRISO, Hugo A. (Comisión Chilena de Energía Nuclear)

Presenter: Mr BRISO, Hugo A. (Comisión Chilena de Energía Nuclear)

Session Classification: Poster Session 1

Track Classification: 09. Assessment of current and emerging threats, hazards and risks related to radioactive sources