

## Web-Based Instructional Program to Improve Professional Development: Recommendations and Standards for Radioactive Facilities in Brazil

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**Abstract :** This web based project focuses on continuing corporate education and improving workers' skills in Brazilian radioactive facilities throughout the country. The potential of Information and Communication Technologies (ICTs) shall contribute to improve the global communication in this very large country, where it is a strong challenge to ensure high quality professional information to as many people as possible. The main objective of this system is to provide Brazilian radioactive facilities a complete web-based repository - in Portuguese - for research, consultation and information, offering conditions for learning and improving professional and personal skills. UNIPRORAD is a web based system to offer unified programs and inter-related information about radiological protection programs. The content includes the best practices for radioactive facilities in order to meet both national standards and international recommendations published by different organizations over the past decades: International Commission on Radiological Protection (ICRP), International Atomic Energy Agency (IAEA) and National Nuclear Energy Commission (CNEN). The website counts on concepts, definitions and theory about optimization and ionizing radiation monitoring procedures. Moreover, the content presents further discussions related to some national and international recommendations, such as potential exposure, which is currently one of the most important research fields in radiological protection. Only two publications of ICRP develop expressively the issue and there is still a lack of knowledge of fail probabilities, for there are still uncertainties to find effective paths to quantify probabilistically the occurrence of potential exposures and the probabilities to reach a certain level of dose. To respond to this challenge, this project discusses and introduces potential exposures in a more quantitative way than national and international recommendations. Articulating ICRP and AIEA valid recommendations and official reports, in addition to scientific papers published in major international congresses, the website discusses and suggests a number of effective actions towards safety which can be incorporated into labor practice. The WEB platform was created according to corporate public needs, taking into account the development of a robust but flexible system, which can be easily adapted to future demands. ICTs provide a vast array of new communication capabilities and allow to spread information to as many people as possible at low costs and high quality communication. This initiative shall provide opportunities for employees to increase professional skills, stimulating development in this large country where it is an enormous challenge to ensure effective and updated information to geographically distant facilities, minimizing costs and optimizing results.

**Keywords :** distance learning, information and communication technology, nuclear science, radioactive facilities

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