REPROLAM
Red de Optimización de Protección Radiológica Ocupacional en LatinoAmerica y Caribe

NEWSLETTER

NUMBER 5, MAY 2022

ISODOSIS
DOSIMETRÍA
COMPUTACIONAL

REPROLAM
WEBINAR: COMPUTATIONAL DOSIMETRY SURVEY

DATE: MAY 11 _ 11H BRAZIL/ARGENTINA

Objective

The survey presented here seeks to reveal the current situation of Computational Dosimetry in Latin America and the Caribbean in terms of capabilities and needs. This survey is part of a series of regional surveys, promoted by REPROLAM and supported by the IAEA (under project RLA9088), whose purpose is to strengthen regional capacities so that end users and technical support organizations (TSOs) comply with occupational radiation protection requirements.

Scope

This survey, prepared online, covers all the people and groups that use numerical methods (Monte Carlo) in the area of dosimetry and radiological protection in the countries of the Region. The survey is individual in order to facilitate contact for future training, software distribution, intercomparisons, etc.

https://meet.google.com/bxv-wrti-fie

In case of doubts, you can send your query to Sebastian Gossio sebastian.gossio2010@gmail.com

NEW DEADLINE
XII REGIONAL CONGRESS OF RADIOLOGICAL AND NUCLEAR SAFETY X IRPA REGIONAL CONGRESS RADIATION PROTECTION: ADAPTING TO NEW SCENARIOS

FROM OCTOBER 23 TO 27, 2022 - SANTIAGO, CHILE

The new deadline for submitting abstracts is May 30, 2022 through the website of the Chilean Society for Radiological Protection, according to a form in Microsoft Word format. Abstracts must have a maximum of 300 words (excluding title, authors and affiliation).

https://www.sochipra.cl/congreso-regional-santiago-de-chile-2022/#areastem%C3%A1ticas

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CULTURA DE SEGURIDAD

SAFETY FIRST

Space dedicated to common understanding and the promotion of Safety Culture through information, analysis, dissemination of experiences and related news.

SAFETY CULTURE: ITS BASIC ELEMENTS

In the previous bulletin, the definitions of Safety Culture were addressed, but…
How to characterize the Safety Culture in an organization?

For this, it is necessary to define a group of elements that will characterize the safety culture in a company organization. As with the concept of Safety Culture, there are several approaches or conceptual frameworks on this aspect, both in terms of the number of elements that must be considered and in their own name, description and importance. Some approaches use terms such as traits, attributes, principles, characteristics or basic elements of the Safety Culture.

One of the approaches used in the field of the use of ionizing radiation sources defines 10 Basic Elements to characterize the Safety Culture, which are:

1. Safety priority;
2. Visible senior management leadership and commitment to safety;
3. Timely identification and resolution of safety problems;
4. Permanent focus on safety;
5. Individual responsibility, involvement and behavior regarding safety;
6. Effective safety communication;
7. Free notification of information related to safety;
8. Fair treatment of individual behaviors regarding safety;
9. Continuous organizational learning about safety;
10. Environment of trust and collaboration in relation to safety .

It is important to note that no basic elements are more important than others. They are all interrelated, favoring or reinforcing each other, but they all need to be present for an organization to be considered to have a strong safety culture. However, the degree to which these elements can be developed or achieved in organizations that carry out activities with sources of ionizing radiation will depend on the type of organization in question, the environment in which it operates and other particularities, being necessary to adapt them and adjust them to each case.

If you are a manager or work promoting the Safety Culture in your organization, we inform you that the new IAEA document on "Safety Culture in organizations, facilities and activities linked to the use of ionizing radiation sources (IAEA TECDOC 1995, 2022)" in which you can Find more detailed information on each of these 10 Basic Elements and other topics related to Safety Culture.

This document and its complementary annexes can be found at the following link:
https://www.iaea.org/publications/15071/cultura-de-la-seguridad-en-las-organizaciones-instalaciones-y-actividades-vinculadas-al-uso-de-fuentes-de-radiacion-ionizante

Rubén Ferro (Cuba) y Renán Ramírez (Perú)

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IAEA-RLA9090 AND RLA9091: CALL FOR A SCHOLARSHIP AT THE IAEA EVENTS AND EMERGENCIES CENTER (IEC) 2022

In collaboration with the IAEA Incident and Emergency Center (IEC), the opportunity has been opened to carry out training aimed at young professionals from Latin America and the Caribbean to help strengthen national capacities in the area of preparedness and response to radiological emergencies.

The training is planned for a period of 6 months starting in July 2022 if possible (travel restrictions permitting).

Those interested must send the following information about their candidate before May 18:

- Curriculum vitae
- Motivation to participate in the internship (maximum half page)
- Proposal of learning objectives during the training

The candidate will be selected at the end of May and we will let them know so that they can send us the corresponding scholarship application (Fellowship) formally through official channels.

This scholarship will be implemented within the framework of the RLA9090/RLA9091 regional projects.

N.Martinez-Castro@iaea.org

WEBINAR:
EURADOS COMPARISON EXERCISE ON NEUTRON SPECTRA UNFOLDING IN BONNER SPHERES SPECTROMETRY (BSS) BY SCK CEN ACADEMY

THU, MAY 12, 2022 · 10:00 AM
ATLANTIC TIME (CANADA) (GMT -3:00)

This webinar will summarize the details and results of the EURADOS international comparison exercise on neutron spectra unfolding using Bonner Spheres Spectrometry (BSS), organized within the activities of EURADOS working group 6: computational dosimetry. Four realistic situations were considered in the exercise: a medical accelerator, a workplace field, an irradiation room and a skyshine scenario. Twenty participants submitted 64 solutions (not all the participants worked with all the scenarios using different codes).

Neutron unfolding problem is inherently complex because it is underdetermined. Therefore, the appropriate use of unfolding codes needs: 1) having sufficient physical knowledge of the situation to estimate the likely characteristics of the neutron field; 2) translating that physical knowledge into a priori information suitable for the specific unfolding code to be used; and 3) correctly evaluating the result of the unfolding process to assess plausibility and accuracy. These steps and the main issues related with neutron unfolding with BSS will be analysed and discussed, with the examples of the EURADOS exercise.

https://www.bigmarker.com/sckcen/EURADOS-comparison-exercise-on-neutron-spectra-unfolding-in-Bonner-spheres-spectrometry-BSS

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WEBINAR ON COMBINED EMERGENCIES RLA-9090

TUESDAY 17 MAY 2022, 18:00 VIENNA TIME, CEST
SPANISH LANGUAGE

Mixed emergencies pose some unique challenges for preparedness and response. Coordination and integration of agreements, as required by international standards, is particularly difficult. As observed in the 2011 Fukushima Daiichi accident, the nuclear or radiological emergency can be initiated and/or affected in a complex way by other incidents or emergencies, which represents an additional and considerable challenge for the response capacities of any State.

The EPR-Combined Emergencies series, published in November 2020, addresses preparedness for and response to a nuclear or radiological emergency initiated and/or affected by conventional emergencies, natural events, physical security events and/or a major national health crisis or (referred to as the "combined emergency"). In addition, it describes the potential challenges of meeting each of the requirements set out in GSR part 7 in a combined emergency, covering the preparedness phase and the response phases, including the urgent response phase, the early response phase, and the response phase. the transition phase of the emergency.

The objective of the Webinar is to raise awareness of the aspects related to combined emergencies within the requirements of the GSR part 7, to discuss the development of emergency provisions for combined emergencies and to raise awareness of the role of the IAEA in the response to combined emergencies.

To register follow the link below or copy and paste into your browser:

https://teams.microsoft.com/registration/kxTyotGkf0utB4Gc-gk9cSg,OGoMQZxNhkuVagh_SdQ97g,Zl7n4PdKOUOMuBHgaY80UQ,VXrguOuSvUC6b1URMhA3Qg,h3Llgtk7-UyOAj0qdwHMpA,SDtV7bYx-UyV5oq8mf0z-A?mode=read&tenantId=a2f21493-a4d1-4b7f-ad07-819c824f5c4a

After registration and acceptance of your participation, you will receive an email with information on how to access the webinar by simply following a hyperlink to join the Microsoft Teams event or by calling by phone.

For additional help regarding registration, please contact Marta Martinez Garcia,
M.Martinez-Garcia@iaea.org

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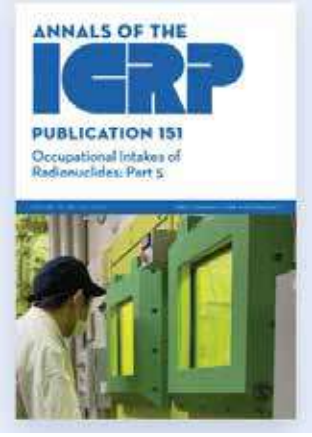

ICRP PUBLICATION 151
OCCUPATIONAL INTAKES OF RADIONUCLIDES: PART 5

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This publication is the fifth and the last in a series dedicated to occupational intakes of radionuclides (OIR), which replaces the Publication 30 series (ICRP, 1979a,b, 1980, 1981, 1988) and Publications 54, 68, and 78 (ICRP, 1989, 1994a, 1997). The first publication of this new series (OIR Part 1) describes the assessment of internal occupational exposure to radionuclides, biokinetic and dosimetric models, methods of individual and workplace monitoring, and general aspects of retrospective dose assessment. The following publications of the series (OIR Parts 2–5) provide data on individual elements and their radioisotopes, including information on chemical forms encountered in the workplace; a list of principal radioisotopes and their physical half-lives and decay modes; the parameter values of the reference biokinetic models; and data on monitoring techniques for the radioisotopes most commonly encountered in workplaces.

For most of the elements, reviews of data on inhalation, ingestion, and systemic biokinetics are also provided. Dosimetric data provided in the printed publications of the series include tables of committed effective dose per intake (Sv per Bq intake) for inhalation and ingestion, tables of committed effective dose per content (Sv per Bq measurement) for inhalation, and graphs of retention and excretion data per Bq intake for inhalation. These data are provided for all absorption types and for the most common isotope(s) of each element. The online electronic files that accompany the OIR series of publications contain a comprehensive set of committed effective and equivalent dose coefficients, committed effective dose per content functions, and reference bioassay functions. Data are provided for inhalation, ingestion, and direct input to blood.

This publication provides the above data for the following elements: beryllium, fluorine, sodium, magnesium, aluminium, silicon, chlorine, potassium, scandium, titanium, vanadium, chromium, manganese, nickel, copper, gallium, germanium, arsenic, selenium, bromine, rubidium, rhodium, palladium, silver, cadmium, indium, tin, hafnium, tantalum, tungsten, rhenium, osmium, platinum, gold, mercury, thallium, astatine, and francium. Additional dosimetric data for exposure from submersion in a cloud of gas are given in Annex A for the noble gases neon, argon, krypton, and xenon.

https://icrp.us18.list-manage.com/track/click?u=6cac8eb3908a91327831893e2&id=d4576691df&e=9aefb544f2

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IAEA PUBLICATION:
TECDOC 1995: SAFETY CULTURE IN ORGANIZATIONS, FACILITIES AND ACTIVITIES LINKED TO THE USE OF POWER SOURCES ONIZING RADIATION

The Ibero-American Forum of Radiological and Nuclear Regulatory Bodies (FORO) recognizes the significant contribution of human and organizational factors to radiological safety. Hence, it is necessary to reduce the great impact that these factors currently have on the frequency of radiological events, as well as to strengthen the important role they can play in reducing doses during activities in which radiation sources are used. . In particular, the FORUM considers it essential that both organizations and workers achieve and maintain behaviors and attitudes regarding radiation protection and safety, as well as physical security, that are a genuine expression of a strong safety culture. This technical document constitutes the first phase of the process to achieve a solid safety culture in organizations linked to the use of radiation sources in the FORUM member countries.

https://www.iaea.org/es/publications/15071/cultura-de-la-seguridad-en-las-organizaciones-instalaciones-y-actividades-vinculadas-al-uso-de-fuentes-de-radiacion-ionizante

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The Network for the Optimization of Occupational Radiological Protection in Latin America and the Caribbean (REPROLAM) is a scientific and cultural society, without profit, political, religious or racial, of unlimited duration, which has the objective of promoting the optimization of occupational radiation protection. REPROLAM seeks to expand academic and scientific cooperation among its members, with the aim of promoting adequate radiation protection for workers.

Visit our website for more information: http://www.reprolam.com/
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