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

NEWSLETTER

NUMBER 6, JUNE 2022

IAEA 60 Years Atoms for Peace and Development

FEATURED EVENT:
ANNOUNCEMENT OF THE INTERCOMPARISON OF REPROLAM 2022 FOR SERVICES OF EXTERNAL WHOLE BODY DOSIMETRY

The Network for the Optimization of Occupational Radiological Protection in Latin America and the Caribbean (**REPROLAM**), with the support of the International Atomic Energy Agency (**IAEA**), intends to establish an intercomparison program for the different technical support services for radiological protection, the purpose of which is contribute to improving the technical performance of personal dosimetry services and the harmonization of their protocols in the region. The intercomparison program will include external and internal dosimetry services and computational dosimetry techniques and biological and physical retrospective dosimetry. These intercomparisons will be open to the participation of public and private institutions.

On this occasion **REPROLAM** is pleased to announce the Intercomparison Exercise for External Dosimetry Services 2022 (ICReprolam2022). This time it will be carried out with the support of the Ionizing Radiation Metrology Laboratory, Nuclear Energy Department-UFPE of the Federal University of Pernambuco (LMRI-DEN/UFPE) of Brazil and the IAEA RLA 9091 technical cooperation project.

Scope:

This intercomparison is for whole body dosimeters used for the evaluation of Hp(10) and/or Hp(0.07). The irradiations, with photons, will be carried out at the Ionizing Radiation Metrology Laboratory-LMRI-DEN/UFPE, Brazil, in the following ranges:

- Energy: 30 keV to 1.3 MeV with the possibility of mixed beams;
- Equivalent dose: 0.2 mSv to 50 mSv
- Angle of incidence: 0º and ± 60º

INTERCOMPARISON PROCEDURE:

Participation record: The External Dosimetry Services (SDE) that wish to participate in this Intercomparison must complete the registration form that can be accessed through the **REPROLAM** website using this address: **https://forms.gle/WZzhvV3Eh1ss6J1n6** . The SDE must fill out a form for each dosimetry technique or system in which it wishes to participate.

Once the registration of participation has been made, the requesting SDE will receive a confirmation email with the acceptance of their registration together with a participation code (to maintain the confidentiality of the SDE), the instructions for sending the dosimeters and an invoice issued by REPROLAM for the payment of your participation.

Costs and Billing: The participation fee for the intercomparison is 1,000 euros (one thousand euros) for each SDE and dosimetry system (TLD, OSL, or others). This fee was calculated without profit for the coordinating laboratory or for any of the organizers. The part of the money that is not used will be used to support future **REPROLAM** activities related to radiological protection. A refund may only be requested in the event that the intercomparison is canceled by **REPROLAM**.

The registration fee must be transferred to the **REPROLAM** bank account that will be informed in the SDE registration confirmation, within a maximum period of 30 days after receipt of the invoice. The costs associated with banking operations will be assumed by the participant.

The **IAEA** will sponsor the participation of a single public laboratory per country, for a total of 18 (eighteen) laboratories in the region.

Shipping of dosimeters: Where possible, dosimeters should be sent with proof of payment of the participation fee. For this intercomparison it is required to send a total of 30 dosimeters for each registered dosimetry system (TLD, OSL or other).

- 20 dosimeters for irradiation
- 10 transit/spare dosimeters

Once the irradiations have been carried out, the LMRI-DEN/UFPE will proceed to return the dosimeters to each SDE for their corresponding reading. Information will also be provided on the procedure for reporting the results obtained, including the maximum period allowed to send them to the Coordinating Laboratory.

One (1) week after the deadline for sending the results, the Coordinating Laboratory (LMRI-DEN/UFPE) will send each participating SDE the details of their response values. After this moment, the reported results cannot be changed, except in the case of technical or administrative errors associated with the irradiation process.

After the confirmation of the results, REPROLAM will deliver to the participants a "Certificate of Participation" including information on the qualities of irradiation, dose, response values and uncertainties, general for all irradiations.

Intercomparison report: The Organizing Group will prepare a report summarizing the results of the intercomparison. This report will include the names of the SDEs that have participated, the types of dosimeters and a photograph of the dosimeters. Results will be submitted anonymously using the confidential code sent to each SDE on record.

The results of the intercomparison will be treated as confidential data and the identity of the SDE will not be revealed.

The data used in the technical and scientific studies will be anonymous. The Organizing Group has the appropriate procedures to guarantee the confidentiality of the results, which will only be known by the minimum number of people in the Organizing Group.

Proposed timeline:

Announcement – call for participants	June 2022
Registration of participants:	June - July 2022
Deadline for registration:	July 31, 2022
Deadline for sending dosimeters to the LMRI-DEN/UFPE:	September 30, 2022
Irradiations:	October - November 2022
Return of the dosimeters to the SDE for reading:	December 31, 2022
Deadline for sending obtained results:	2 months after received irradiated dosimeters
Final results information:	March 2023
Issuance of Participation Certificates:	April 2023

REPROLAM Organizing Group

Daniel Molina CPHR- Center for Radiation Protection and Hygiene, Cuba
Denison Souza-Santos Institute of Radioprotection and Dosimetry, Dosimetry Division- IRD/CNEN, Brazil.
Helen Khoury Federal University of Pernambuco, Brazil
Juan Carlos Mora Canadas Ciemat, Spain Technical Officer, IAEA
Leslie Vironneau Individual Radiological Surveillance Section Chilean Nuclear Energy Commission, Chile
Patricia Mora Coordinator of the External Dosimetry area of REPROLAM, Costa Rica

Coordinating Laboratory:
Ionizing Radiation Metrology Laboratory - LMRI-DEN/UFPE, Brazil
Laboratory Manager Helen Khoury

Contact: icreprolam@gmail.com
Registration, complete form: https://forms.gle/WZzhvV3Eh1ss6J1n6

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SAFETY FIRST

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

THE PRIORITY OF SAFETY: ONE OF THE BASIC ELEMENTS OF SAFETY CULTURE

The phrase "Safety first", which we often see on posters, advertisements, brochures in high-risk companies, is an expression that synthesizes in a simple and concrete way, the thought that is reached when there is a high Safety culture in an organization.

However, achieving this is not an easy task and will be a constant challenge for managers and staff of organizations. There are many and diverse demands, objectives or pressures that arise during the operation of an organization that may conflict with the supreme interest of maintaining safety, and may undermine it by relegating it to the background. This can happen, for example, when there are production or assistance pressures, or agreed deadlines, or cost reductions are required, or there are contractual or political pressures, among many other situations, that try to be resolved at the cost of simplifying, reducing, omitting or avoiding requirements or safety conditions, creating latent failure conditions, which can trigger a radiological event or directly cause the accident.

This reality, that is, the possibility of priority conflicts between safety requirements and the other internal and external demands of an organization can only be resolved in favor of safety when the priority of safety is a value developed in the organization as part of their culture.

It is important to point out that this basic element of the Safety Culture does not mean a safety priority at all costs, which leads to a paralysis of the organization in its productive or service mission or leads to bankruptcy. What it is about is managing to function with a balance where the safety of a process is not compromised, nor are the service or production goals or objectives for which that organization exists. An excess in one direction or another will inevitably be fatal to the organization in terms of accidents or in economic terms or in terms of its social function. In other words, it is having a safety culture, which, through constant adjustments, manages to keep the organization in what Dr. Reason called “the safety corridor” that will guarantee that it is kept away from both the possibility of an accident as well as the possibility of bankruptcy (Fig. 11 of IAEA TECDOC 1995)

If you are a director or work promoting the Safety Culture, remember that the development of this Basic Element will give the organization and its members the culture of always handling conflicts with safety in an appropriate way and in its benefit.

Rubén Ferro (Cuba) y Renán Ramírez (Perú)

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SEPR SOCIEDAD ESPAÑOLA DE PROTECCIÓN RADIOLÓGICA
Afiliada a la I.R.P.A.

CONFERENCE ON SANITARY RESPONSE AND DOSIMETRY IN EMERGENCIES

START DATE: THURSDAY, JUNE 16, 2022 - DURATION: 1 DAY
TIME: 09:30 - 18:00
LOCATION : MADRID

The objective of this conference is to publicize the main recommendations and the most advanced existing systems in terms of health response and dosimetry in nuclear and radiological emergencies.

The conference is aimed at all relevant actors in the field of nuclear and radiological emergencies, both in the preparation and implementation of preparedness and response protocols at the national and regional levels.

All information, as well as registration (before June 13), are available on the WEB page.

Nuclear and radiological emergencies can be caused by accidents at the facilities, by accidents in the transport of radioactive material or as a result of malicious actions, among other causes. In a nuclear or radiological emergency, depending on the type of event, it is a priority to be able to classify those affected, both among the population and among the first responders. The characteristics of the accident must be taken into account: the type of radioactive products; the radiation they emit; the routes of exposure and whether the exposure affects part of the body or the whole body. In addition, it is essential to estimate the range of dose received and to know possible clinical problems of the affected people. All this will allow decisions to be made about the treatments to be applied, depending on the specific scenario.

Among the fundamental elements for an adequate response to this type of emergency are therefore those linked to the health response. From a medical perspective in these scenarios, the availability of effective countermeasures to protect those affected and avoid the appearance of harmful health effects caused by radiation must include the use of radioprotectors, radiomitigators and methods to treat radioactively contaminated people. , among others. In addition, it is essential to be able to assess the dose received by those affected. Fixed environmental radiological surveillance networks can help, but in general it must be assumed that dose assessments will have to be supported by mobile characterization systems, the possible use of individual dosimeters when available and the performance of biological dosimetry in those cases of relevant overexposure. If there is no individual dosimetry, the dose received must be reconstructed from exposure modeling and the use of different tools, which should include both radiation detectors and the analysis of exposure biomarkers. All of which is essential both for an initial clinical evaluation of the affected people and to determine the follow-up and control measures for them.

For more information:
https://www.sepr.es/convocatorias/eventodetalle/10840/147/jornada-sobre-respuesta-sanitaria-y-dosimetria-en-emergencias?filter_reset=1

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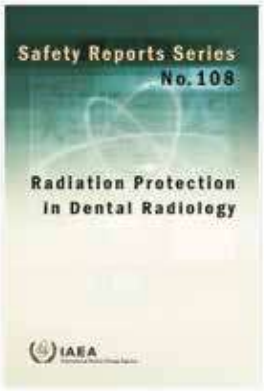
IAEA PUBLICATION SRS 108: Radiation Protection in Dental Radiology



X-ray images are widely used in dentistry to diagnose symptoms, plan and monitor treatment, and monitor pathology. This Safety Report provides guidance on meeting the radiation protection and safety requirements for uses of ionizing radiation in dentistry set out in IAEA Safety Standards Series No. GSR Part 3, Radiation Protection and Safety of Radiation Sources. radiation: International basic safety standards. It includes guidelines for justification and appropriateness of medical exposure and optimization of radiation protection and safety for patients, carers and dental staff, with details on considerations relevant to children and pregnant women. Quality assurance, dosimetry, and operation of dental radiological equipment are also discussed. This publication is intended for dentists, referring physicians, medical radiation technologists, and other dental health professionals, as well as medical physicists, radiation protection experts, manufacturers, and regulators.

This document complements the e-Learning on radiation protection in dental radiology duly announced in May 2021 that can be found on the IAEA website.

https://www.iaea.org/resources/rpop/resources/online-training#6

Document available at: https://www.iaea.org/publications/14720/radiation-protection-in-dental-radiology

RADIOLOGICAL SAFETY AND PROTECTION IN THE MEDICAL USES OF IONIZING RADIATION

This Safety Guide provides recommendations and guidance for compliance with the requirements set forth in publication No. GSR Part 3 of the IAEA Safety Standards Series with respect to radiation protection and the safety of radiation sources in medical uses of ionizing radiation in relation to patients, workers, caregivers and comforters, volunteers involved in biomedical research, and the public. The Guide covers diagnostic radiology procedures (including dental), image-guided interventional procedures, nuclear medicine, and radiation therapy. It also contains recommendations and guidance on applying a systematic approach to balancing reaping the benefits of medical uses of ionizing radiation with the imperative of minimizing the risk of radiological effects to people.

https://www.iaea.org/es/publications/14822/proteccion-y-seguridad-radiologicas-en-los-usos-medicos-de-la-radiacion-ionizante

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ICRP 2023, THE 7TH INTERNATIONAL SYMPOSIUM ON THE RADIATION PROTECTION SYSTEM

NOVEMBER 6-9, 2023 AT THE GRAND NIKKO TOKYO DAIBA

ICRP 2023, the 7th International Symposium on Radiation Protection System, will be held in Tokyo, Japan. It will be organized by the National Institutes of Quantum Science and Technology (QST), in collaboration with Japanese academic societies.

This Symposium of the International Commission on Radiological Protection (ICRP) will be an important milestone in the review and revision of the Radiological Protection System. Attendees can expect world-class hospitality and sessions.

ICRP 2023 will be held from November 6-9, 2023 at the Grand Nikko Tokyo Daiba, conveniently located 20 minutes from Haneda Airport (HND) and 90 minutes from Narita Airport (NRT), and can be accessed directly from Daiba Station on the Yurikamome Line.

More information will be available in the coming months. Questions about participation, sponsorship and the program can be directed to Kelsey Cloutier, ICRP's Head of Communications and Stakeholder Engagement.

https://www.icrp.org/page.asp?id=579

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 June 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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UNSCEAR 2020/2021 REPORT VOLUME I SOURCES, EFFECTS AND RISKS OF IONIZING RADIATION

The **UNSCEAR 2020/2021** Report Volume I is comprised of the main text of the 2021 report to the General Assembly (A/76/46) and scientific annex A: Evaluation of medical exposure to ionizing radiation.
This volume includes the report to the General Assembly with scientific annex A "Evaluation of medical exposure to ionizing radiation".

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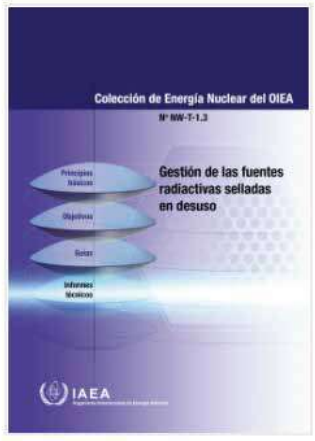
https://www.unscear.org/unscear/publications/2020_2021_1.html



MANAGEMENT OF DISUSED SEALED RADIOACTIVE SOURCES

This publication summarizes the revised information distributed in previous IAEA publications and provides an updated overview of the management of Disused Sealed Radioactive Sources (DSRS) based on current status and trends in this area. The publication incorporates the latest experiences in source management, such as new techniques used for DSRS conditioning and storage. It also highlights problems encountered and lessons learned to help avoid common mistakes of the past with regard to managing obsolete sources.

https://www.iaea.org/es/publications/14767/gestion-de-las-fuentes-radiactivas-selladas-en-desuso

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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/
How to contact: reprolam2020@gmail.com