

CULTURA DE SEGURIDAD

SAFETY FIRST

ARTICLE: "CULTURE OF SAFETY IN PRACTICES WITH IONIZING RADIATION SOURCES: PROGRESS AND CHALLENGES IN LATIN AMERICA."

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Latin America is possibly the region of the world in which the most intensive work has been done to promote a culture of safety in the radiological area in the last 10 years.

Although the concept of Safety Culture appears as a lesson from the Chernobyl accident in 1986 and quickly generated numerous studies and actions in the nuclear energy sector, spreading even to other sectors of the high-risk non-nuclear industry, in the field of activities with ionizing radiation sources it did not have the same impact, beyond some mentions in normative documents, event reports or international conferences. For a long time there was a conceptual and methodological vacuum, which made it difficult to implement concrete actions and methods to advance the safety culture within this sector.

The year 2012 marked the beginning of regional efforts in Latin America to reverse this situation. Two almost simultaneous actions by the International Atomic Energy Agency (IAEA) and the Ibero-American Forum of Nuclear and Radiological Regulatory Bodies (FORO) gave the initial impetus.

In March of that year, the IAEA, within the framework of the RLA9066 project, organized a Regional Workshop in Mexico for the transfer of experiences from the nuclear industry in the sphere of safety culture related to occupational radiation protection. Based on suggestions and needs on safety culture identified in several previous regional meetings on Occupational Radiation Protection Programs in the different practices, a Regional Action Plan for the Promotion and Development of the



Safety Culture in Practices with Ionizing Radiation Sources in Latin America until 2014. As part of this plan, the First Regional Survey on Safety Culture in Latin America was carried out, in which user entities from 13 countries participated and which made it possible to have of a preliminary diagnosis of the situation in the region with a view to future activities. Also, within this plan, a Meeting of National Leaders of Safety Culture was held in 2013 in Rio de Janeiro, designated by several countries, in order to train them and coordinate national activities in this field.



For its part, the FORUM organized in Havana, in October 2012, the first meeting of a project to develop a guide on Safety Culture for the radiological sector. After three years of work by a team made up of specialists from Argentina, Brazil, Chile, Cuba, Mexico, Spain, Peru and Uruguay, a basic enunciative document was achieved, with the foundations for a better understanding and dissemination of this concept, adapting it to the particularities of the protection and radiological and physical safety of radiation sources, with practical recommendations for their evaluation and improvement, as well as suggestions for the action of Regulatory Bodies in this field. The document is in preparation for publication as IAEA TECDOC / S.

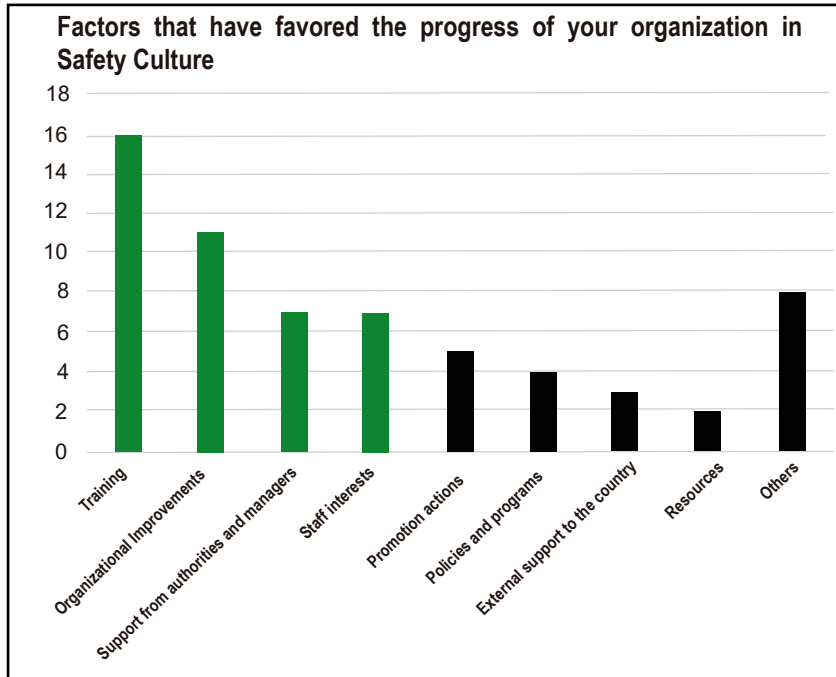
After these initial steps and synergistically, the IAEA and the FORUM began to work on a group of actions to disseminate and promote the culture of safety in the radiological sector in the region, through national and regional training and training actions. the practical application of this concept to a specific practice.

In 2016, the IAEA, through the RLA9075 project, organized in Chile a Regional Basic Training Course on Safety Culture in organizations, facilities and activities with ionizing radiation sources and a National Course in Nicaragua, with the same, directed local professionals.

Another regional action sponsored by the IAEA in 2019, within the RLA9085 project. In this case, specialists from the region were summoned to discuss the lessons of safety culture derived from various radiological accidents at facilities and end-user activities. That same year, the Agency, in conjunction with local authorities, organized two national training courses on Safety Culture in activities with ionizing radiation sources in medical practices in Costa Rica and in medical and industrial practices in Panama.



The FORUM for its part, approved in 2017, a project for the pilot application of the Safety Culture Assessment methodology of the FORUM Guide to an Industrial Gammagraphy company. The project, which involves the participation of experts and industrial gammagraphy companies from Argentina, Brazil, Chile, Cuba, Peru and Uruguay, was initially planned for two years, but the situation of the Covid 19 pandemic has delayed its conclusion. The results of the project will provide new tools to extend the use of the FORUM Guide in this practice.



As a means of feedback, and in order to assess the advances in safety culture in the radiological sector of the region as a result of the training actions and projects developed between 2012 and 2016, a regional mini-survey was carried out in 2017 that involved a sample of the participants in all these activities. The vast majority of those surveyed considered that the safety culture had undergone some progress in their organizations and pointed out as factors that contributed to this: the training received, the organizational improvements made, the support of the authorities and managers and the personal interest of the respondents in promoting the issue.

Among the factors that have hindered further progress, they identified managers who, due to ignorance or poor familiarity with this topic, do not assume leadership and commitment to the safety culture.

They also recognized the lack of dedicated resources, the sustainability of the actions initiated over time and the erroneous vision of the safety culture that still prevails, among others. As recommendations to advance more quickly, the respondents suggested continuing with the training activities, dedicating more resources to the subject by the organizations, influencing more in the commitment of the managers with these efforts and achieving regulatory actions that force to work on this issue .

Other examples of the impact that the actions carried out in the region are having were revealed in the debates during the Regional Congress on Radiological and Nuclear Safety and the 11th IRPA Latin American Congress, held in Havana, in 2018. Representatives from several countries such as Brazil , Chile, Cuba and Uruguay showed national initiatives for the dissemination or evaluation of the safety culture in user entities or teachers based on the training received and the FORUM guide. New actions are currently being carried out in some countries and training actions on Safety Culture are planned for senior and middle managers within the framework of RLA9085 when the current situation of the Covid 19 pandemic allows it.

Event	Participants	Countries of origin
Regional Workshop, Mexico, 2012 Exchange with the nuclear sector	18	Bolivia, Chile, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.
Regional Meeting, Brazil, 2013 Safety Culture for national leaders.	15	Argentina, Brazil, Bolivia, Chile, Costa Rica, Cuba, Dominican Republic, Ecuador, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.
National Course, Nicaragua, 2016	18	-
Regional Course, Chile, 2016 Basic aspects of the Safety Culture.	27	Argentina, Brazil, Chile, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.
Regional Course, Chile, 2019 Safety Culture through accident lessons.	28	Argentina, Bolivia, Brazil, Chile, Costa Rica, Cuba, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, Uruguay and Venezuela.
National Course, Costa Rica, 2019	70	-
National Course, Panama, 2019.	19	-
FORUM project, 2012-2015	8	Argentina, Brazil, Chile, Cuba, Mexico, Peru and Uruguay*.
FORUM project, 2017-present	6	Argentina, Brazil, Colombia, Chile, Cuba, Peru and Uruguay.
Total participants:	209	Total countries: 19

After almost 10 years of initiating efforts to promote and develop a culture of safety in the radiological sector in Latin America, today the region shows a better outlook to continue advancing. And this not only because of the materials that have been prepared and the actions carried out or in progress, still few and isolated, but also because of the training actions of more than 200 professionals from 19 countries, who will be in a better position to promote and support the efforts. That they be done in the future to favor a cultural change towards higher levels of safety culture and, therefore, safety and radiological protection in our countries and the entire region.

Cultural changes take time, as it is necessary to unlearn habits and approaches ingrained over years. That will be a permanent challenge. However, other immediate challenges to continue moving forward will be the expansion and improvement of the Safety Culture evaluation processes, the work with the first and second level managers of the user entities to achieve their leadership and commitment to the culture programs. safety and finally, ensure that the Regulatory Bodies have a greater impact on these efforts through their own safety culture and their regulatory programs and actions on this issue. The spaces, resources and mechanisms for the dissemination and continuous training on this subject will continue to be expanded through regional networks such as this REPROLAM network.

RLA9066 "Strengthening and updating of technical skills for the protection of health and safety of workers occupationally exposed to ionizing radiation"

FORUM, Safety Culture Guide in organizations, facilities and activities with ionizing radiation sources (2015). www.foriberam.com

RLA0975 "Strengthening of the national infrastructure for compliance with regulations and requirements regarding radiological protection for end users"

RLA 9085 "Strengthening of regional capacities for end users and technical support organizations in radiation protection and emergency preparedness and response in line with IAEA requirements".

FORUM, Pilot application of the Safety Culture Assessment methodology of the FORUM Guide to an Industrial Gammagraphy company, 2017



VIRTUAL EVENT

REPROLAM PARTICIPATION IN THE XXVIII ALASBIMN CONGRESS

from September 5 from 9 to 9:15

The traditional annual events of the Brazilian Society of Nuclear Medicine (SBMN) and the Latin American Association of Societies of Biology and Nuclear Medicine (ALASBIMN) will promote information exchange between countries in the area with a main focus on Teranostics

From September 3 to 6, 2021, the most renowned specialists and researchers in Nuclear Medicine will integrate the program of the XVIII Congress of the Latin American Association of Societies of Biology and Nuclear Medicine (ALASBIMN), in conjunction with the XXXV Brazilian Congress of Nuclear Medicine (CBMN). The traditional events of the two societies, which will be carried out in an integrated manner, will promote an exchange of information between the countries of the area and will propose a debate on the updates, with a main focus on the theme of Theranostics.

In light of the uncertainties regarding the advance of the COVID-19 pandemic, the events will be held in virtual format. Which will not hurt the debate. "It is an opportunity to gather a greater number of participants from different countries without logistical impediments", comments Juliano Cerci, president of ALASBIMN and of the SBMN Advisory Council, referring to the successful experience with the realization of CBMN 2020 Online.

To get an idea, the Brazilian event in 2020 brought together more than 95 speakers, 43 of them foreigners, a record number for a national congress of the specialty. In addition, the digital format will allow simultaneous instant interaction through chat and live discussion tables that will later be available to participants, so that they have the opportunity to review classes or see those they missed, access in a asynchronous to them.

The Scientific Directorships for the two events are also already defined. For Brazil, the Scientific Director of the SBMN, Dr. Cristina Matushita, assumes the position of the national event, and the vice president of the SBMN, Dr. Rafael W. Lopes, the event at the Latin American level. "It will certainly be a great opportunity to exchange experiences on what is most advanced in each country, and to advance our specialty throughout Latin America," says Dr. Rafael Lopes.

In addition to nuclear physicians, participation in specialty events is also indicated for residents, biomedical, technologists, biologists, physicists, chemists, pharmacists and all those who are interested in the use of radioisotopes in Medicine in Latin America.

For more information: <https://sbmn.org.br/alasbimn2021/?lang=es>



THE MARIE SKLODOWSKA-CURIE SCHOLARSHIP PROGRAM IT IS ALREADY OPEN

To apply until September 30, 2021

The application process for the 2021 cycle of the IAEA Marie Sklodowska-Curie Fellowship Program is now open. Women from around the world are encouraged to apply until September 30, 2021 for an MSCFP scholarship, which is awarded to 100 selected candidates per year.

The scholarship program, launched in March 2020, aims to inspire and encourage women to pursue careers in the nuclear field, providing scholarships for master's programs and the opportunity to undertake internships related to their field of study, facilitated by the organism. Member States and non-governmental organizations have supported the program with financial and in-kind contributions.

For more information on MSCFP and the application process, click on:

<https://www.iaea.org/about/overview/gender-at-the-iaea/iaea-marie-sklodowska-curie-fellowship-programme/Information-for-applicants>

ICRP_ DIGITAL WORKSHOP "THE FUTURE OF RADIOLOGICAL PROTECTION"

Tuesday, October 19, 2021 - Wed, October 20, 2021

1:00 pm. - 5:00 pm. CEST

This workshop is an opportunity to have your voice heard in setting up the PR System for the next generation. Whether you work in regulation, standard setting, healthcare, energy, or any other business that involves ionizing radiation, being a part of this conversation now will undoubtedly save you time and energy in the not-too-distant future.

ICRP is made up of more than 250 of the world's leading radiation experts. We are the "gatekeepers" of the Radiation Protection System, but the System exists for those who use it to protect patients, workers, the public, and the environment. Collaboration with the people you impact the most is essential.

Over the next decade, there will be many opportunities to play a role in this process. However, this workshop provides the first meaningful global platform for stakeholders to set the stage for open collaboration on the issues to be considered. You can help frame the opportunities, topics, and elements of the System that are most relevant to you and your work.

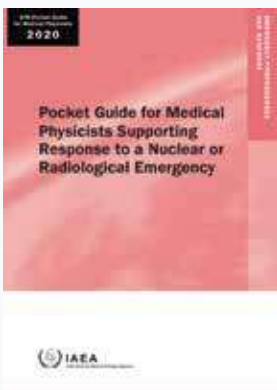
The workshop will include on-demand electronic presentations and live sessions, with many opportunities to interact with all participants. More information on how to participate will be available in the coming weeks.

One of ICRP's strategic priorities is to promote diversity and inclusion by increasing our outreach to affected populations and underserved regions of the world. That's why digital events like this workshop will have a flexible fee structure. All registration fees are used to make these events accessible to anyone, regardless of their geographic location or financial situation. Radiation Protection is for everyone, and your support ensures that everyone has access to the PR System.

Individuals and organizations who wish to support this event with attractive sponsorship opportunities and modest contributions can contact Kelsey Cloutier (kelsey.cloutier@icrp.org), Manager of Development and Communications, for more details.

For more information: <https://icrp.kindful.com/e/future-of-rp>

RESOURCES AND DOWNLOADS



AVAILABLE

Pocket Guide for Physical Physicians supporting Response to a Nuclear or Radiological Emergency

To access the download, go to:

<https://www.iaea.org/publications/13388/pocket-guide-for-medical-physicists-supporting-response-to-a-nuclear-or-radiological-emergency>

New IAEA Guidance in Emergency Preparedness and Response

“The publication is universally adaptable and addresses the different aspects of an emergency from the direct radiological consequences to protecting against non-radiological aspects, which are decisive for an effective response,” said Svetlana Nestoroska Madjunarova, former counsellor in monitoring and emergency at the North Macedonian Radiation Safety Directorate and author of the publication.

Five main topics are covered in the publication: the concept of a protection strategy for a nuclear or radiological emergency, the basis and process for the development of a protection strategy, processes for justifying and optimizing protection and safety and consultation with interested parties. These five topics provide guidance to those planning a protection strategy, the underlying concepts and they also provide practical guidance on implementation in alignment with the IAEA safety standards and the goals of emergency response as defined in General Safety Requirement Part 7.

The publication also provides an outline for national protection strategies to support national efforts to develop justified and optimised plans to protect health and minimize danger to life and property during and following a nuclear or radiological emergency, as well as specific guidance for the effective, optimal implementation of the strategy in emergency response.

Protection measures should be based on scientifically justified methods and applied only when observations in the field indicate action is necessary. In this manner, maximum protection can be provided with minimum social and economic disruption. Justification in emergency response means taking diverse factors into account to achieve more good than harm. Optimization is a process that applies the resources at hand in the most effective manner to provide the best protection during an emergency.

More information in: <https://www.iaea.org/newscenter/news/new-iaea-guidance-in-emergency-preparedness-and-response>

