

RADIOLOGICAL PROTECTION FORUM

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1. SUMMARY

The Nuclear Safety Council has established a permanent Forum concerning Radiological Protection in the Medical field, to favour the communication between regulators and stakeholders.

This Forum holds three components: Nuclear Safety Council, Radiological Protection Association and Medical Physics Association. The objective is to define some topics of common interest in order to encourage dialogue and improve both safety culture and radiological protection in medical radioactive facilities.

The Committee has four general meetings every year and develops its activity through working groups that exchange information among all the stakeholders.

2. INTRODUCTION

The law that regulates the creation of the Nuclear Safety Council establishes, in connection with its functions and liabilities that the Council itself is competent in radiation protection of workers, public and environment.

The Spanish Association of Radiological Protection and the Spanish Association of Medical Physics are both scientific associations that unite professional workers with common professional interests. These associations at the same time create a framework for dialogue, communication, information and participation between their associates and the public, the companies and the private and public institutions whose activities are related to radiological protection in the medical field. Both associations have a large number of stakeholders that work in the radiological protection field related to design of the radioactive facilities in the medical areas.

As well as the Nuclear Safety Council (CSN) being the authority in regulatory matters, it must apply the appropriate safety culture that allows a proper relationship between the Regulatory Organism and the radiological protection professional workers within an open dialogue framework.

This framework enables the discussion of objectives, regulatory requirements and optimisation of available resources which ensure that the required attention is paid to radiological protection issues in the medical radioactive facilities.

The attention that the facilities require can be given directly through control of CSN or indirectly through the recommendations of professionals, both of which would influence the decision taken by the licensee of the facilities.

3. MISSION

The mission of the Forum CSN/Associations is to encourage dialogue in order to improve both safety and radiological protection of medical radioactive facilities and also to improve the effectiveness of the operations in these facilities

4. STRUCTURE

The structure of this Forum is as follows:

Forum Committee:

The Committee has several permanent members.

On behalf of CSN, the Radiological Protection Technical Director, the Occupational Radiological Protection Manager, the Environmental Radiological Protection Manager, and four Area Heads whose work matters are connected with medical radioactive facilities.

On behalf of the Associations the permanent members are the two Presidents and three representants of each Association. These three representants are chosen among the members whose professional activity is related to the medical field. One of them is the secretary of the Forum.

On behalf of the CSN the head is the Radiological Protection Technical Director, and on behalf of the Associations the head is the President of one of the two.

Working Group ad-hoc:

They are Forum dependant. Their composition depends on the issue they deal with. The length of time during which the group is active depends on the job it develops.

5. FORUM ACTIVITY

The Nuclear Safety Council maintains direct relationship with the radioactive facilities' owners, and on the other hand the Forum action influence the operational conditions of these facilities. The activities that the Forum develops are the following:

- a) Set up of working groups dealing with issues of common interest in the radiological protection field applied to the medical radioactive facilities. These working groups can develop different activities in a short medium or long term in accordance with the preliminary program.

The topics the working groups deal with are mainly:

- Practical Application of reglamentation and regulatory conditions..
- Analisis of new standards, requirements and recomendations.
- Identification of needs for new standards to be applied in facilities that provide services to these facilities, such as laboratories, tecnical assistance services and radioactive material and equipment sellers.

- b) Coordination of common interest issues.

- c) Exchange of information concerning activities or programs connected with radiological protection in medical radioactive facilities.

The associations are responsible for the participation of their members in the Forum activities and for keeping the members informed on the issues it deals with and the results.

The Forum Committee meets four times a year.

The Nuclear Safety Council helps the members of the Committee with the costs.

6. WORKING MATTERS

To date the Forum has defined fourteen topics to be developed by the working groups. The topics and their objectives are the following:

- Radiological protection in pregnant workers exposed to ionising radiation.

OBJECTIVE: Production of a document containing specific criteria and classification of work places for these workers

- Preparation of a general Radiological Protection Manual in accordance with the Directive 96/29/EURATOM. This Directive has been included in our legislation.

OBJECTIVE: The Manual can be used by the Radiological Protection Services and Units adapting it to each situation.

The Radiological Protection Services and Units are entities that provide radiological protection services to the radioactive facilities.

- Radioactive effluents discharge criteria

OBJECTIVE: To establish operational limits in accordance with the regulation

- Management of solid radioactive waste

OBJECTIVE: To propose a guide of the Nuclear Safety Council on clearance of very low activity radioactive material and to promote the creation of a new standard concerning this issue.

- Licensing of new facilities and Modifications of operating facilities.

OBJECTIVE: To analyse and propose operative procedures in order to ease the regulatory process.

- Metrology in Braquitherapy

OBJECTIVE: To define the needs of calibration, number of calibration Centers and to propose solutions.

- Supervisor and Operation's Licences

OBJECTIVE: To analyse the different Standards and propose actions

- Metabolic Therapy

OBJECTIVE: To develop criteria concerning hospitalisation periods during treatment, taking into account the EU DOCUMENT

- Internal Dosimetry

OBJECTIVE: To prepare a document including the criteria for internal doses surveillance.

- Area Dosimetry

OBJECTIVE: To prepare a document including the criteria to assign the worker's doses from area monitoring

- Development of Reglamentation concerning workers of external Companies

OBJECTIVE: To develop radiological protection criteria applied to the health field.

- Continuous Training

OBJECTIVE: To develop radiological protection training programs for workers with and without license.

- Radiological Protection Services in Hospitals

OBJECTIVE: To review the current services and propose guides concerning structure, devices, training, etc.

- Medical Surveillance

OBJECTIVE: To review the new situation proposed by the Law of Prevention of Laboral Risk and the new standard.

Up to now, six working groups have begun to work in the following issues:

- Radiation Protection in pregnant workers exposed to ionising radiation
- Preparation of a general Radiological Protection Manual in accordance with the Directive 96/29/EURATOM, included in our Legislation
- Radioactive effluents discharge criteria
- Management of solid radioactive waste
- Licensing of new facilities and Modifications of operating facilities
- Metrology in Braquitherapy

The conclusion of the five working groups has been included in reports, whereas the work of the sixth has not concluded yet, although it will have soon.

In the last meeting of the Forum two new working groups were established. Their issues being:

- Internal Dosimetry
- Area Dosimetry

Parallel to activity of the Forum, the Nuclear safety Council has begun to study the topic concerning Metabolic Therapy to develop criteria to establish the period of time that a patient must spend in the hospital during the treatment with Iodine 131. This research has developed by the Nuclear Safety Council together with the Nuclear Medicine Association. The conclusions will be exposed and reviewed in the Forum

7. SUMMARY OF THE FORUM DOCUMENTS

Radiological Protection in Pregnant Workers exposed to ionising radiation

The new limit of 1 mSv to the fetus during all the pregnancy period, forces the establishment of conditions in the work development of pregnant women exposed to ionising radiation.

The Forum document establishes the working places where pregnant workers can't develop their professional activity, and elaborates several more reduced information documents addressed to women and physicians.

Furthermore, the document establishes what maximum dose over the abdomen can produce 1 mSv over the fetus. This dose has been calculated in 2 mSv.

This document is in the process of being published.

Preparation of a General Radiological Protection Manual

The new Reglamentation establishes that the Radiological Protection Services and Units, must elaborate a Radiological Protection Manual to adapt their activities to the new classification of the working areas, and to the

classification of exposed workers considering the current dose limit. It must also consider the need to elaborate a quality assurance program for the protection of the patient.

The Forum Committee decided that it would be very useful to establish the general frame of the Manual in order to help users and create a common frame for all stakeholders.

The Manual is already available and it is in the web site of the two Associations. It will be published this year.

Management of solid Radioactive Waste

The Nuclear Safety Council has published a guide covering the need of a correct waste management in radioactive facilities. This guide holds the clearance activity values of TEC-DOC- 2000 of IAEA document.

The Forum reviewed the guide and encouraged the creation of a new legal standard which included the contents of this guide.

The guide was published at the beginning of this year, and the new Legal standard will be published at the end of this year.

Licensing of New Facilities and Modification of Operating Facilities

The Nuclear Safety Council produced a document concerning the application of the new Reglamentation in the License of the radioactive facilities and presented its conclusion to the Forum Committee. Moreover, the Nuclear Safety Council established the cases in which the facilities have to request an Inspection visit in order to start up the modified section of the facility.

The document is internal to the Nuclear Safety Council

Radioactive effluents Discharge Criteria

Our new Reglamentation of Radiological Protection that includes the Directive 96/29/EURATOM, doesn't contain the new values for the Annual Incorporation Limits.

The Forum document includes these limits and a future new condition for the facilities, which concerns the activity limit that each facility can discharge to the water net.

The document is concluded and will be published this year.

8. FORUM ACTIVITY APPRECIATION

The Forum has been operating two years. Its work has been very positive in connection with the relationship established between the Regulatory Organism and all the stakeholders.

On the other hand, the technical quality and the interest of the documents that the Forum has elaborated is very important for the better functioning of the facilities and the encouragement of safety culture.