The First Decade of the Independent Croatian Radiation Protection Association at the End of the Millennium

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HISTORY

The Croatian Radiation Protection Association (CRPA) was founded under this name in 1979, as a member of the Yugoslav Radiation Protection Association (YRPA). Within the frame of YRPA, CRPA organized many domestic and international meetings, conferences. The Yugoslav Radiation Protection Association was founded in 1963. The Croatian scientists and specialists were very active in YRPA. In order to assess the scientific potential of Croatia in the field of protection from ionizing and nonionizing irradiation, the contribution of Croatian researchers to 16 Symposia of Yugoslavian Radiation Protection Association from 1963 till 1991 (1) was analyzed. The following has been established: researches from Croatia submitted 439 contributions, which accounts for 24.5% of all works presented. The works were prepared by 302 authors, 94.7% from two Institutes in Zagreb: Ruđer Bošković Institute and Institute for Medical Research and Occupational Health. The main fields of research interest in these years were: radioecology, dosimetry, radiotoxicology, general aspects of radiation protection, radioactive waste processing and biodosimetry.

THE INDEPENDENT CRPA

CRPA has come a long way since 1979, broadening its interests to take account of the increasing uses of ionizing and non-ionizing radiation. From 1991 CRPA acts as an independent organization. CRPA became a regular member of the International Radiation Protection Association (IRPA) in 1992, being among the very first Croatian professional organizations to enter international associations. The Croatian Radiation Protection Association is a public organization with the purpose of promoting and developing scientific as well as upbringing, educational and cultural activities in the field of radiation protection and related fields of science.

With respect to these aims CRPA:
- stimulates and supports basic and applied scientific research;
- stimulates and supports the application of scientific results in commercial and non-commercial activities;
- ensures advisors with high level technical and scientific knowledge for the regulatory-administrative authorities;
- initiates and carries out activities to improve public education;
- popularizes science, its results and their applications;
- affirms the scientific method and manner of thought.

a) Registration, organization and administrative works

The registration of CRPA was carried out according the Croatian laws and legislation. The Statute of the Association was accepted by the adequate authorities as well as by IRPA. According to the Statute the main goals of the Association are protection of the population and of human working and living environment from harmful effects of radiation, as well as the promotion of scientific understanding of the consequences of radiation. The CRPA gathers scientists and specialists from the entire Croatia and acts under the auspices of the Ministry of Science and Technology and Ministry of Health of the Republic of Croatia. Nowadays CRPA has 117 members.

After registration the next steps were the creation of the CRPA Web page and logotype.

The web page was created in 1996 and can be accessed at the Internet address:

http://mimi.imi.hr/crpa/.

The logotype of CRPA - similar as that of IRPA - is based on the international symbol for ionizing radiation, trifoil, and combines successful traditional Croatian motives (ornamental wickerwork) with high technology (2). The English variation of the logotype is shown in Figure 1.
b) Support of the scientific and professional work

Research work in radiation protection is explicitly multidisciplinary, because radiation sources are quite different as well as are different their effect of humans and environment.

To support this work, four symposia of the Croatian Radiation Protection Association with international participation were organized (1992, 1994, 1996, 1998). They all took place in Zagreb. In 1992, while Croatia was still suffering the imposed war, CRPA managed to organize the first Symposium. The respectful number of 68 papers that were presented by 130 authors, showing the status in the field of radiation protection in Croatia and providing a forum for exchange of knowledge and experience. Selected abstracts were reviewed and published in Health Physics journal (1993;65;333-336). This was great acknowledgement to the CRPA and the Croatian Science. After the First Symposium has been successfully completed, CRPA organized every two years a new Symposium. The proceedings (2-5) of all symposia were printed in Croatian with extended abstracts in English. Some characteristic data of the Symposia and Proceedings are shown in Table 1.

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<th>Table 1. The contributions at four Symposia of CRPA</th>
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<tr>
<td>First Symposium</td>
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<tr>
<td>No. of contribution</td>
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<td>No. of authors and co-authors</td>
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<td>No. of contributions by foreign authors</td>
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<td>No. of pages in the Proceedings</td>
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In addition to this Symposia, CRPA was co-organizer of the series of bi-annual meetings on radiation protection in Central Europe in co-operation with the Austrian, Czech, German-Swiss, Italian, Slovak and Slovenian Associate Societies of IRPA. The congresses in Austria (1993), Slovenia (1995), Czech Republic (1997) and Hungary (1999) have a rank of IRPA Regional Congress. CRPA was entrusted with the organization of the next bi-annual meeting, which will be held in Dubrovnik in spring 2001. The Presidency and the members of CRPA will do their best to organize a successful Congress. Although in 1998 only the fourth domestic symposium were organized by CRPA, our Association has a long tradition, because Croatian specialists significantly contributed to the activities of all symposia organized by the former Yugoslav Radiation Protection Association, beginning with the first one which was held in Portorož (Slovenia) in 1963.
In the frame of supporting the scientific work, CRPA also regularly organizes lectures with invited domestic and international lecturers.

c) The adviser role of CRPA to the Authorities

The status of radiation protection in Croatia can be described as unsatisfactory, but developing. The new Law on radiation protection had to serve as basis for the improvement in radiation protection infrastructure, operational radiation safety etc. Unfortunately the Law is not completely suitable to regulate uses of radiation sources and managerial part is not fully compatible with the international recommendations (7). Although the members of CRPA were involved in the creation of new Laws on Ionizing and Non-ionizing Radiation Protection, the suggestions to improve the Laws proposed by the Association itself were unfortunately not completely accepted by the corresponding administrative organs. In the future CRPA has to achieve a better acceptance by the Authorities involved in radiation protection. This would result at least in a better acceptance of the international recommendations as Croatian radiation protection requirements.

We expect that the competent Authorities, first of all the Ministry of Health and the newly established Croatian Institute for Radiation Protection will co-operate not only with some individuals from CRPA, but with the Association as an organization. CRPA can ensure personnel for training, expertise and advising.

d) Public education, popularization

The health education about the prevention and protection from the radiation exposure must be systematically and continually organized by leading responsible experts of corresponding institutions and CRPA. It is not enough to inform the public properly, accurately and timely, but it is necessary to educate the public too, because only in that way the public can be thoroughly involved in the decision-making process, such as the site-selection of radioactive waste disposal (8). Only that public opinion which is ecologically educated can bring in control upon ecological situation and turn point of development to future of ecological society.

Radiation protection education is essential in medicine, because among man-made radiation sources, the highest contribution to the population exposure is due to the radiation used for medical purposes. Besides applying modern instruments it should be organized continual additional education of medical doctors, as well a education for the patients.

CRPA recognized the importance of these tasks. In co-operation with the Croatian Radiological Society it works on education of medical doctors. However, CRPA has to put additional effort on the popularization of radiation protection sciences and education of public in this field.

FUTURE PLANS - CONCLUSIONS
The CRPA shall go on with the regular work in:
- organizing lectures with new and interesting topics,
- corroborating with other similar Croatian professional organizations,
- continuing the international co-operations, especially with IRPA.

CRPA shall have the honour to organize the next "Central European Radiation Protection Congress", which will, hopefully, get the status of an IRPA Regional Congress. The proposed topic of the Congress is "Radiation Protection and Health". This topic enables an increased participation of health physicists and encourages the submission of papers on medical aspects of radiation protection. As the location of Congress, is foreseen the region of Dubrovnik, the beautiful medieval town on the Adriatic coast (9,10), which was by a decision of UNESCO put on the list of the world's cultural heritage. The time of the Congress would be the end of May or beginning of June 2001.

The CRPA has to increase the efforts
- to became an advisory organ for the National Authorities in radiation protection, and
- in education of public and popularization of radiation protection.

REFERENCES


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