



## 5<sup>th</sup> European IRPA Congress

(Bert Gerritsen)



We hope to welcome you on June 4, 2018 in The Hague!

The 5<sup>th</sup> European IRPA Congress will be held during **4-8 June 2018 in The Hague, The Netherlands**. With the theme “**Encouraging Sustainability in Radiation Protection**”, this congress focuses on various aspects needed to make sure that we have, and will continue to have, adequate and sustainable expertise and resources to protect human health and the environment adequately against the adverse effects of ionising and non-ionising radiation.

One of the key elements will therefore be a wide range of activities for the **young generation**, starting with a dedicated series of refreshers on Monday morning, continuing with a School Event on Wednesday afternoon for high school students, the Young Professional Award Competition on Thursday, and finishing with the awarding of two Young Professionals during the closing ceremony.

With about 350 contributions, the 5<sup>th</sup> European IRPA Congress will offer you a series of high quality keynotes, parallel and poster sessions on a wide variety of topics. A **novelty** in the scientific program of this IRPA congress will be the poster pitches, which will be available for you to study the posters outside the poster sessions.

The **25 refresher courses** are at **no extra fee** for participants. For the first time at a European regional IRPA congress these refreshers will be clustered, on Monday morning and on Wednesday morning. Nine topics will be addressed with two lectures each: one at basic level, and the other at more in-depth level or focusing on recent developments. Other refresher courses will be offered during a series of excellent **technical visits**.

We are very happy with the support of various **international organisations**, such as the European Commission, the World Health Organisation, ICRP, ICNIRP and the IAEA, who will address recent developments in their respective keynotes. Furthermore, we are very proud to have the European Foundation for Education and Training in Radiation Protection (EUTERP) organising a workshop during the congress.

An IRPA congress would not be complete without a wide range of companies presenting their equipment, products and services to generate, measure or protect against ionizing radiation.

The congress offers radiation protection professionals the opportunity to interact and exchange experiences among each other. We will have plenty of opportunities to meet old friends and make new ones. The reception, the congress diner and the guided jogging tracks in the early morning are only a few of these opportunities. You might even consider extending your stay in The Netherlands by joining the post congress tour to Leeuwarden/Fryslân, the European Capitol of Europe 2018.

**The deadline for normal registration is April 30, 2018.** For detailed information, please visit our website: [www.irpa2018europe.com](http://www.irpa2018europe.com)

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## The Ethical Developments in Radiation Protection Practice

(R. E. Toohey and B. LeGuen, IRPA EC Members)

Last year ICRP Task Group 94 produced a draft document on the ethical basis of radiation protection practice, which led the Executive Council to review the current IRPA Code of Ethics. A brief summary of the ICRP effort, taken from the paper “Towards a Fundamental Set of Values,” by Chris Clement and Jacques Lochard, follows.

“The main focus of this current effort is to elucidate the ethical foundations of the system of radiological protection as it stands today. This is an exercise in analysis and clarification, to discern the ethical aspects which are imbedded in the system. As noted earlier, the system is fundamentally a guide to human conduct in the domain of radiological protection, and therefore, intentionally or not, explicitly or implicitly, must have an ethical basis.

“Given this, it is natural to look first at the system itself, to find the key words, phrases, and ideas that reveal its ethical foundation. However, it is also sensible to look outside the system, for well-understood ethical underpinnings in related fields, and to find the vocabulary needed to speak clearly about what is found.

“This is exactly what has been done through the series of workshops. Participants sought a set of values: relevant to the system of radiological protection, shared as widely as possible, and that should be able to stand the test of being applied to current and foreseeable problems, with sensible results. It was generally agreed that a small set of values is better than a large one; as long as the set is complete it need not be redundant. The interim result is a set of core ethical values:

### **Beneficence and Non-maleficence**

To do good, and to avoid doing harm

### **Prudence**

To recognize and follow the most sensible course of action, especially in the face of uncertainty, and avoid unwarranted risk

### **Justice**

The fair sharing of benefits and risks

### **Dignity**

Treating individuals with unconditional respect, and preserving their capacity to deliberate, decide and act without constraint.

“Beneficence and non-maleficence are found at the very roots of the system. Recall that ‘The primary aim of the Commission’s recommendations is to contribute to an appropriate level of protection of people and the environment against the detrimental effects of ionising radiation exposure without unduly limiting the desirable human actions



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that may be associated with such exposure' and the principle of justification goes further to say 'any decision that alters the radiation exposure situation should do more good than harm.' (ICRP 2007).

"Non-maleficence (avoidance of harm) is seen in the desire to protect people and the environment from detrimental effects. The desire to 'avoid undesirable human actions' and to 'do more good' reflect beneficence.

"Prudence is also essential to the system. The word 'prudence' appears many times in the publications of ICRP e.g.: 'The LNT [linear no-threshold] model is not universally accepted as biological truth, but rather, because we do not actually know what level of risk is associated with very-low-dose exposure, it is considered to be a prudent judgement for public policy aimed at avoiding unnecessary risk from exposure' (ICRP 2007). Here is an explicit recognition of the uncertainties of risks associated with very-low-dose exposures. Despite the absence of direct evidence of risk to humans at these very low levels, in the face of this uncertainty it has been judged 'prudent' to assume that the risk may not be zero.

"Justice is reflected most obviously in the 'fundamental principle' of individual dose limitation. Optimisation of protection could be implemented seeking only the greater good, with little regard for the welfare of individuals. This has long been a criticism of the utilitarian ethic from which this fundamental principle arises. However, individual dose limitation puts boundaries on optimisation to ensure that no individual shares an undue share of risk. The use of constraints and reference levels in optimisation serves a similar purpose.

"Dignity is perhaps the least explicit of the core values in the writings of ICRP. Nonetheless, the system does refer to 'participation of relevant stakeholders' and frequently refers to the need for individuals to be 'informed' not only in the context of medical patients but more broadly (ICRP 2007)."

The focus of this ICRP work is to explicitly determine the ethical values embedded in the system of protection itself. **The IRPA code of ethics**, although clearly affected by the ICRP guidance, is a set of "professional ethics", and hence has a different but complimentary focus - i.e., broad guidelines for radiation protection professionals to follow in the practice of the profession. These guidelines follow:

- 1. Members shall exercise their professional skill and judgment to the best of their ability and carry out their responsibilities with integrity.*
- 2. Members shall not allow conflict of interest, management pressures or possible self-interest to compromise their professional judgment and advice. In particular members shall not compromise public welfare and safety in favor of an employer's interest.*
- 3. Members shall not undertake any employment or consultation that is contrary to the public welfare or to the law.*



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*4. Members shall protect the confidentiality of information obtained during the course of their professional duties, provided that such protection is not in itself unethical or illegal.*

*5. Members shall ensure that relations with interested parties, other professionals and the general public are based on and reflect the highest standards of integrity, professionalism and fairness.*

*6. Members should satisfy themselves as to the extent and content of the professional functions required in any particular circumstances, especially those involving the public safety. Members should not undertake professional obligations for which they are not qualified, or do not believe themselves to be competent, to carry out.*

*7. Members should take all reasonable steps to ensure that persons carrying out work done under their supervision or direction are competent, and not under undue pressure from workload or other causes.*

*8. Members should strive to improve their own professional knowledge, skill and competence.*

*9. Professional reports, statements, publications or advice produced by members should be based on sound radiation protection principles and science, be accurate to the best of their knowledge and be appropriately attributed.*

*10. Members should, whenever practicable and appropriate, correct misleading, sensational and unwarranted statements by others concerning radiation and radiation protection.*

*11. Members should take advantage of opportunities to increase public understanding of radiation protection and of the aims and objectives of IRPA and their own Society.*

One way to review these guidelines against the ICRP-generated ethical basis of radiation protection is to try to list each of these guidelines under the appropriate core ethical values of beneficence and non-maleficence, prudence, justice, and dignity. One possible listing of many potential listings is as follows; in addition, many of the guidelines could be listed under more than one value.

Guidelines 1, 2, and 3 clearly relate to beneficence and non-maleficence, as they specifically relate to the protection of members of the public from the potential hazards of radiation exposure.

Guidelines 4, 6, and 8 clearly relate to the prudence of practicing only in areas in which the practitioner is qualified by education and experience.



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Guidelines 5, 7, and 9 relate to justice, that is, providing to clients or affected parties accurate knowledge and recommendations that could affect them, and fulfilling the duty owed to an affected party by one's actions. These obviously could also be listed under beneficence and non-maleficence.

Guidelines 10 and 11 relate to dignity, that is, the right of affected persons to know how they could be affected by radiation and radiation protection practice, and thereby enabling them to make informed decisions about their concerns and proposed actions regarding radiation.

The IRPA Executive Council recently reviewed the current IRPA code of ethics, and noted that it is clearly consistent with the recommendations of the TG 94, in recent ICRP Publication 138. Hence there is no reason at this time to amend the IRPA Code.

It is not expected that the implementation of ICRP Publication 138 will have any significant impact on radiation protection practice, with one possible exception: a movement away from stakeholder engagement to stakeholder empowerment. This is an important issue for radiation professionals to be aware of and incorporate into their practice. Stakeholder engagement has traditionally consisted of providing information to stakeholders, i.e., individuals who are, or may be affected by the use of ionizing radiation or the presence of radioactive contamination. Typically, however, the stakeholders (i.e., anyone affected by a situation) were not the ultimate decision-makers about the situation. Since the Chernobyl and Fukushima accidents however, the dynamic has changed: the stakeholders themselves are becoming the decision-makers, with not only input, but actual selection of alternatives such as the actions taken to reduce contamination or exposure, where to site waste storage locations, whether a particular technology should be used, whether to evacuate an area, etc. This phenomenon changes the traditional audience of the RP professional from municipal officials to the empowered stakeholders themselves, who are now the decision makers. As this process continues to evolve, IRPA will continue to monitor the developments, offer advice to any and all who may desire it, and keep its members informed.



## The First Independent Meeting of the Croatian Radiation Protection Association (CRPA) Young Professionals

((Marina Poje Sovilj and Marijana Nodilo, Croatian Radiation Protection Association))

The first independent meeting of young professional of the Croatian Radiation Protection Association was held on January 16<sup>th</sup> 2018 in Zagreb. The main goal of the meeting was strengthening scientific cooperation between younger CRPA members and discussing problems young professionals encounter nowadays. Each participant presented his/her work in a twenty-minute lecture with discussion. The presentations were held on a high professional level and discussions resulted in very interesting new ideas for cooperation between different research groups. Final discussion resulted in the following conclusions: (1) A formal section of young professionals within CRPA should be formed; (2) A similar meeting should be held every two years, and in meantime a less formal gatherings should be organized during traditional CRPA symposia; (3) Young CRPA professionals appreciated having a representative in both the CRPA Board of directors and in the Supervisory board; (4) CRPA should encourage young professionals to participate more actively in CRPA scientific and social engagements; (5) Since CRPA did not have a young representative at the European and World Congresses of the IRPA in last two competitions, it was proposed that a larger financial support should be granted for future tenders. It was recommended to propose to IRPA to reduce the congress fee for young professionals; (6) Young professionals appreciated notifications about scholarships, projects, conferences sent to all of CRPA members by the CRPA President and Secretary. A new mailing list for young members was established.



Participants of the first independent young professional meeting of the CRPA with President Ines Krajcar Bronić and Secretary Željka Knežević.



## **Indian Association for Radiation Protection: An Associate of IRPA**

(Dr. Praedeepkumar, President)

The Indian Association for Radiation Protection (IARP), a non-governmental organization (NGO) of radiation protection professionals in India, was registered in 1968 under the Indian Public Trust Act (1950). The Association was admitted in May 1970 as an affiliate of the International Radiation Protection Association (IRPA). The main objectives of the association are: a) To bring about proper awareness of the hazards from ionizing radiations amongst their users in particular and the public in general; b) To encourage adoption of appropriate means for avoiding or reducing radiation exposure in the applications of ionizing radiations and nuclear technology in the country such as power generation, industry, medicine, agriculture, scientific research etc., thereby maximizing the benefits while minimizing the risks; c) To facilitate contacts and exchange of information amongst specialists in radiation protection and related disciplines in the country and with their counterparts in other countries; d) To take appropriate steps to carry out, support and encourage research and development as well as teaching in the various fields relevant to radiation protection.

To fulfil the above aims, the association conducts biennial national or international conference. The association has so far conducted 33 conferences (29 national and 4 international). In addition to this it also holds topical meetings and workshops on subjects of current interest related to safety aspects in the applications of ionizing radiations and radioisotopes in various field. To mention a few, it has conducted workshops on 'eye lens dosimetry & implementation of latest ICRP guidelines' and a technical meeting on the 'Implementation of requirements of planned exposure situations of International BSS – GSR part 3' in 2015 and 2017, respectively. It publishes a quarterly peer reviewed open access journal, "Radiation Protection and Environment" through Wolters & Kluwers ([www.journalonweb.com/rpe](http://www.journalonweb.com/rpe)). Although all manuscripts are available on-line, it also prints and distributes hard copies of the journal to about 300 members. It conducts Public Awareness Programmes (PAP) in Schools and Colleges to spread awareness on the applications of radiation. The PAP consists of lecture modules on topics such as 'Beneficial uses of radiation', 'Radiation and Environment', 'Radiation, Radiation Units and Safety', 'Radiation Detection and Measurements' etc, practical demonstration of radiation survey instruments and special Skits.

IARP conducts training programmes for industry professionals in various courses to enable them to become radiation safety officers. Some of the training courses conducted are: a) Radiation Safety Aspects of Nucleonic Gauges (8-days); b) Radiation Safety Aspects in Gamma Chamber (9-days); c) Operators Training Course (40-days); d) Radiation Safety Aspects in Research Application of Ionising Radiation (9-days). The training courses include class room lectures, practical demonstrations and visit to industrial establishments. It includes conduct of written examination and issuance of certificates on the successful completion of training. About 12-14 courses are conducted annually and around 500 professionals undergo the training.

The association operates a website ( [www.iarp.org](http://www.iarp.org) ), where details of current and past activities of IARP, training schedules, notes on current topics and radiation safety are hosted. All the members of association are life members and there is only a nominal one-time payment of administrative charges when they get first enrolled.