NEA Stakeholder Involvement in the Development of ICRP Recommendations

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1. Introduction

Beginning with its creation in 1957, what became the Committee on Radiation Protection and Public Health (CRPPH) of the OECD Nuclear Energy Agency has been interested in the development of recommendations by the ICRP. The CRPPH membership represents radiological protection regulatory agencies and TSOs in the NEA's 30 member countries. These organisations have national responsibility for the development and implementation of radiological protection regulations, and in general regulations in all the NEA's member countries are based on ICRP recommendations. As such, the CRPPH membership is very interested in assuring that the recommendations from the ICRP are clear, address their needs and can be reasonably implemented. As a result of this the CRPPH has actively engaged with the ICRP to provide assessment and input to recommendations.

A significant manifestation of this interest began in 1999 when the ICRP opened discussions on what was to become ICRP Publication 103. To most effectively participate in discussions with the ICRP, the CRPPH organised a series of international meetings to discuss the ICRP's evolving approach to radiological protection policy. To formulate more concrete input, the CRPPH created in 2002 the Expert Group on the Implications of ICRP Recommendations (EGIR). The EGIR discussed each draft recommendation provided by the ICRP, providing detailed comments and proposed changes supported by clear rationale. The CRPPH also employed the EGIR to provide a similarly detailed level of NEA input to the development of the new International Basic Safety Standards. Recognising the value of this work, in May 2009 the CRPPH agreed that the EGIR had become a very useful process for the Committee. As such, the EGIR became a generic tool for the Committee to assess the implications of any draft text that the CRPPH deems should be reviewed. In recognition of this change, the group's name was changed to the Expert Group on the Implications of Recommendations (EGIR).

The "EGIR Process" that the CRPPH has established involves the identification of a draft document that members wish to assess and which the author organisation is willing to release, in draft form, for comments. A call for nominations is made within the CRPPH, and experts with experience relevant to the topic of the document being reviewed are submitted. A 2 to 3 day meeting is held during which the document is reviewed word-by-word, line-by-line and page-by-page. A series of general comments is compiled during discussions, as is a series of specific comments to the text itself, suggesting changes (e.g. new wording, deletions, additions, etc.), and for each suggested change a comment providing the rational/justification for the suggested change. This system of general and specific comments provides the document authors with a very complete assessment, in the view of the CRPPH, of the document and provides concrete suggestions for improvement.

The activities of the CRPPH to provide such input to and views on the development of influential international standards have been significant, but are considered to have been extremely worthwhile.

2. ICRP Publication 103

With the introduction by the ICRP of successive drafts of the new recommendations, the interactions between the protection community and the ICRP continued at the formal inter-agency level, in national and international conferences involving members of the Main Commission, through feedback on the ICRP website and feedback by way of journal publications and agency reports. The largest co-ordinated interaction has been spearheaded by the Nuclear Energy Agency (NEA) through

its Committee on Radiation Protection and Public Health (CRPPH). The interaction has involved conferences in various countries at which there was direct interaction with ICRP main commission members and detailed reviews and commentaries on the successive ICRP drafts by the CRPPH and a subcommittee, the Expert Group on the Implications of the ICRP Recommendations (EGIR). Specifically, this work, culminating with the publication of the final recommendations – Publication 103 – in 2008, included the development of 8 CRPPH reports, the organisation by the CRPPH of 7 major international conferences, and the in-depth assessment of four ICRP draft documents by the EGIR.

The international effort has been huge. Stakeholders with interests spread throughout the field of radiological protection from many countries have had their say. For the review of the documents leading up to ICRP Publication 103, the CRPPH, through the meetings and expert groups listed above, focused its efforts on the ICRP concepts of justification; optimisation; exposure situations; application of LNT; dose constraints and reference levels; exclusion, exemption, clearance and authorisation; collective dose; radiological protection of the environment; and stakeholder involvement.

An indicator of the overall impact that the interactive process has had is that, as the ICRP points out, the new recommendations do not contain any fundamental changes in policy. This was not the direction that the evolution of the recommendations appeared to be taking at the start of the process. The list below shows the single most important evolutionary changes that reflects the suggestions and concerns of the CRPPH, the EGIR and conference participants.

- Justification is retained as a principle.
- The role of optimisation has been strengthened throughout the system of protection.
- Dose limits for individuals have been retained.
- The definition of and guidance on the new categories of exposure have been refined.
- The role of the linear non-threshold model as a regulatory tool is emphasised.
- Some issues surrounding the application of dose constraints and reference levels have been resolved and more advice is promised.
- There is flexibility in the application of the concepts of exclusion and exemption, with which the CRPPH's process of authorisation is coherent.
- Collective dose remains for use in occupational settings and, in a limited way, for use with public exposures.
- The expansion into environmental protection is cautious and appropriate to ICRP's niche.
- The involvement of stakeholder is endorsed, with the emphasis that it is decision aiding.

The process that has been followed has exemplified stakeholder involvement. There has been interaction between stakeholders and the members of the Main Commission of the ICRP, and input from the stakeholders to the development of the new recommendations. The outcome has been influenced by stakeholder input, but the final say has, of course been with the ICRP. The process has been one of decision aiding, rather than decision making. Further, the interactions with the ICRP have helped the understanding of the system of protection. The interactions appear to have been particularly helpful in Asia. The three conferences in Tokyo allowed for a much greater participation of the Asian radiological protection community in the decision making process than in the past, with the consequent better mutual understanding.

3. The International Basic Safety Standards

Even before the publication of ICRP 103 discussions had turned to implementation in international standards, and to the review and updating of the International Basic Safety Standards, the BSS. The NEA had cosponsored the 1996 BSS and following its implication in the development of ICRP 103 was very interested in now contributing to the development of documents implementing ICRP 103 and experience since the publication of the 1996 BSS.

Here again, the CRPPH relied heavily on the EGIR, but as a cosponsor of the previous BSS was more of a partner in development, with the 7 other international organisations cosponsoring the BSS, than an active stakeholder. And the CRPPH took its role very seriously, organising 7 EGIR meetings to assess and comment on BSS drafts, and organising or participating in 63 meetings between January 2007, when work began in earnest, and May 2011 when the final draft was considered by the IAEA to be ready for submission for final country approval.

As a result of this active work on the BSS, the final draft was well understood by the member countries of the NEA, all of whom are members of the IAEA. It is felt that this understanding contributed to the draft's approval by the IAEA Board of Governors in September 2011, and subsequently by the NEA's Steering Committee in October 2011.

4. Conclusions

For over 10 years the CRPPH has been actively engaging in the development of international radiological protection recommendations and standards by performing in-depth assessment of draft texts and providing suggested alterations accompanied by rationale for proposed changes. This approach has not only served by helping to assure that final documents appropriately address the needs of the CRPPH membership, but also by fostering a deep understanding of the assessed texts by the CRPPH membership thus facilitating their eventual implementation.

The CRPPH strongly feels that the EGIR process that it has developed over the years is an extremely effective tool for helping to assure that international standards and recommendations address their needs and concerns, and for helping to improve national understanding of documents being developed and radiological protection issues being addressed. The CRPPH will continue to use this stakeholder involvement process of decision aiding.