Ethics and Social Values in the Management of Existing Exposure Situations: Early Reflections

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Background

• There is no conceptualization / formalization of the ethical principles that underpin the system of radiation protection in ICRP publications, although these principles are quite present.

• There is however an interest for such conceptualization / formalization:
  • Two recent CRPPH Workshops on “Science and Values in Radiological Protection” (Helsinki, 2008, Vaulx de Cernay, 2009) and a forthcoming third one (Tokyo, Nov. 2012).
  • Increasing questioning from some NGOs and the public.
  • “The ethics of radiation protection is a new field of applied ethics. It is a highly promising one, both from a theoretical and a practical perspective”. Hansson, J. Radiol. Prot. 27 (2007).
  • Creation of a Working Party of ICRP Committee 4 on the ethics of radiological protection in October 2011.
The radiation protection system is a construct that combines the state of knowledge on the effects of radiation, ethical and social values and the feedback experience from the field.

The basic principles of radiological protection are rooted in the three theories of normative ethics (how humans ought to behave):

- Justification: virtue ethics
- Optimisation: utilitarian ethics
- Limitation: deontological ethics

The Recommendations aim to respect individual rights (deontological ethics), to promote collective interest (utilitarian ethics) and to favour wisdom and discernment (virtue ethics).
Prudence and justice are the two pillars of the edifice:

• Prudence allows to take into account the inevitable uncertainties of radiation science – Adoption of LNT model
• Justice allows to take into account the inevitable inequities in managing exposures – Restrictions on individuals doses

• There are also procedural aspects in the implementation of ethics i.e. procedures that help to make ethical decisions rather than norms that help to behave according ethics
• Finally, ICRP, as an international advisory body, must adopt a cross-cultural approach to develop its reflection on ethics
The ethical foundations and the “values” structuring the radiation protection principles

- Prudence
- Justice
- Reasonableness
- Equity
- Tolerability
- Justification
- Optimisation
- Limitation
Existing exposure situations

- Exposure to cosmic radiation in aviation and in space flights
- Exposure to radon indoor
- Exposure to naturally occurring radioactive material
- Exposure in contaminated territories after a nuclear accident or a radiation emergency
- Exposure on contaminated sites from past activities
Common features of existing exposure situations

- Exposures affect place of living and day to day activities
- Levels of exposure are highly dependant of individual behaviours
- Situations are generally characterized by a wide spread distribution of individual exposures
- Responsibility for protection falls largely on individuals
- Radiation protection is closely related to environmental health, social, economic, political, ethical, aesthetic,… factors
- Many stakeholders are generally involved to control the situation
Principles of ethics and the management of existing exposure situations

• **Prudence**: ALARA principle
• **Justice**: reference levels
• **Dignity**: two conceptions
  • **Attribute of human condition**: idea that something is due to the human being because she/he is human. This means that every individual deserves unconditional respect, whatever her/his age, sex, health, social condition, ethnic origin and religion.
  • **Autonomy of the individual**: idea that individuals have the capacity to act freely and morally.
  • **Procedural aspects**: self-development/self-help, right to know and stakeholder engagement
Right to know is related to the hazards an individual is exposed to, the harm they might cause, and the precautions that could prevent these harmful effects in order to allow her/him to act based upon a clear appreciation and understanding of the facts, implications, and future consequences of her/his action.

In other words, right to know refers to the type of information that affected persons should receive to make informed and effective decisions.

The right know principle in the field of radiation protection is closely related to the access to radiation protection culture.
Radiation protection culture

• One possible definition:
  the knowledge and skills enabling citizens to make choices and behave wisely in situations involving potential or actual exposure to ionizing radiation

• Practical radiation protection culture should allow people:
  • To interpret results of measurements
  • To orient themselves in relation to radioactivity in everyday life
  • To bring elements to make decisions and take actions
  • To assess the effectiveness of the protective actions they implement themselves
Self-development/self-help

- The act of improving or helping yourself without relying on anyone else
- Include activities that improve **awareness**, develop **competence** and **interpersonal relationships**, and enhance **quality of life**
- Self-help considers the extent to which the affected persons can implement protection actions and their degree of control or choice over the situation
- Voluntary actions carried out by affected individuals themselves are deemed positive as they respect the fundamental values of **liberty**, **autonomy** and **dignity**
Self-help protection

- To gain control on the situation and to become actors of their own protection, exposed people must understand:
  - Where, when and how they are exposed?
  - What can they do to protect themselves?
- It is the responsibility of public authorities to provide:
  - General information on the exposure situation
  - Information on ways to reduce doses
  - Conditions and means for direct access to monitoring
- Self-help protection actions are complementing the protective actions implemented by authorities
Why to engage stakeholders?

• To take into account more effectively the **concerns and expectations** of stakeholders and the specificity of the contexts

• To adopt more **effective** protection actions

• To insure adhesion and **maintain vigilance**

• To promote **autonomy and accountability** of stakeholders

• To improve **social trust and public confidence**

• To prevent controversies and facilitate resolution of conflicts
Lessons from past experience with contaminated territories

• The involvement of all stakeholders in the implementation of the protection strategy is key to ensure the effectiveness and sustainability of protective strategies.

• Radiation monitoring is an indispensable dimension.

• The pluralism of sources of measurement is important for ensuring confidence of exposed people in the results.

• Establishment of places for dialogue is important for the dissemination of information and the development of a common language between all involved stakeholders.
Concluding remarks

• The system of protection for existing exposure situations aims at promoting well-being (keep exposures ALARA), treating everybody fairly and respecting dignity of exposed/affected stakeholders

• The above considerations should be considered a starting point and should be consolidated and deepened with the participation of social scientists but also all relevant stakeholders

• The Committee plans to hold in the coming years a series of seminars in cooperation with various organizations, on the mode of this seminar, to develop a shared vision of ethical and social values underpinning the system of protection

• The goal is not to add elements to a system that is already complex, but rather to make it more transparent and accessible