

Developing Research on Radiation Protection Culture

C. Schieber, T. Schneider

RICOMET 2017 IAEA, Vienna, June 27-29

cepn

Introduction

- CONCERT Project:
 - WP2 Task 2.6: Development of a SRA on Social Sciences and Humanities
 - Ethics and justifications
 - Risk Communication and Risk Perception
 - Radiation Protection Culture
- Presentation of the synthesis of the sub-task group reflexions
 - CEPN: Mélanie Maître, Caroline Schieber, Thierry Schneider
 - EEAE: Sotirios Economides
 - ISS: Cristina Nuccetelli
 - MUTADIS: Gilles Hériard-Dubreuil, Stéphane Baudé
 - NRPA: Astrid Liland, Lavrans Skuterud
 - SCK-CEN: Catrinel Turcanu
 - UMIL: Marie-Claire Cantone



Characterisation of Radiation Protection Culture -1

- RP culture is a concept of a composite nature, characterized at the same time by:
 - An assembly of knowledge, know-how, skills, experience, practices related to radiation protection
 - A set of perceptions, values, attitudes, believes, expectations, related to radiation risk
 - An on-going and dynamic building process based on multistakeholders interactions



Characterisation of Radiation Protection Culture -2

Stakeholders ?

- Exposed individuals
- Actors involved directly or indirectly in the identification and implementation of protection actions and the management of exposures
- ⇒ Specific to exposure situations
 - Planned exposure situation
 - Occupational exposures: NPPs, Medical, industry application, ...
 - Public exposures: around installations
 - Patient exposure
 - Existing exposure situation (radon, NORM, contaminated areas,...)
 - Public exposure
 - Worker exposure
 - Emergency situations



Characterisation of Radiation Protection Culture -3

- **Workers**: exposed workers and worker's organisation, management lines, planners, designers, authorities,...
- Public in planned exposure situations: SHs around 'nuclear installations', authorities,...
- **Medical field**: patients and their organisations, health professionals, hospital management, authorities,...
- **Radon**: local inhabitants, building construction professionals, radon local health professionals,...
- **Contaminated territories:** inhabitants inside and outside contaminated territories, national and local authorities, various professions and groups involved in the accompaniment of actions (Medical personnel, education staff, producers, consumers, non-institutional experts, civil society organisations and citizen initiatives),...
- **Research activities:** Scientists and researchers from the different platforms involved in the various fields of research/activities associated with radioactivity, ionising radiations and/or radiation protection, Civil society organisations concerned with radiation protection issues,.....

5



Aims of Radiation Protection Culture

- Favour the understanding of radiation protection norms and standards
- Enable individuals, where relevant:
 - to reflect on their own protection and/or that of other individuals
 - to consider consciously radiation protection aspects in their activities or decisions
 - to make their own decision with regard to their own protection against ionising radiations
 - to participate to the decision making process related to the management of exposure situations
- Enable RP professionals and other stakeholder to dialogue, to share a common language:
 - to address the concerns of all concerned stakeholders
 - to enhance the efficiency of the decision-making processes associated with the implementation of the radiation protection system



Some elements contributing to the building process of RP culture

- Different levels:
 - at the level of individuals (i.e. resulting in an individual knowledge and behaviour regarding radiation protection)
 - within groups or organisations (i.e. resulting in organisational structures and management actions favouring RP)
- Requires a certain degree of knowledge regarding radioactivity, ionizing radiations and protective actions
 - Adaptation to the type of exposure situations as well as to the actors and stakeholders.
 - Role for education and training
 - Behaviours are also based on values, practices and experiences: need to consider the direct contribution of the people involved with the support of scientists/professionals, as well as the sharing of experiences,..



Characterisation of Radiation Protection Culture

- There is not a 'unique' RP Culture
- It clearly depends upon the exposure situations, the stakeholders involved, the national or local cultural aspects, ...
- Characterization is needed to elaborate efficient and relevant processes of dissemination and building of RP culture among the concerned stakeholders.
- Key research topics in this area include the following:
 - Specificities associated with exposure situations in terms of actors, stakeholders, RP culture aspects ...
 - Identification of organisational / societal / political / economic / psychological / ethical aspects that influence RP culture or behaviours for given exposure situations
 - Understanding the links between RP culture at the level of an organisation/ community and the level of groups or individuals from this organisation/ community
 - Identification of impact of the evolution of RP technologies, knowledge or communication technologies on RP culture



Evaluation of the level RP culture

- Development of criteria / methodologies / tools in the field of SSH
- Quantitative criteria
- Qualitative criteria:
 - Capability of individuals to interact with the RP professionals and / or those in charge of setting norms and standards and to be involved in decision making processes
 - Capability to implement "self-help" protection actions
 - Contribution to a broader decision making process including the different facets of the daily life
 - "Fluidity" of relationship between stakeholders regarding RP issues in different exposure situations

• ..



- Highlighting the role and benefits of RP culture
- Initiating learning processes from experiences (characterized by lack or presence of RP culture):
 - Positive and negative aspects
 - What is the contribution of RP culture in the implementation and improvement of the protection "system"?
 - How RP culture can improve health and well being of populations?
 - What has been achieved when developing / building a RP culture? (impacts on the level of exposures, the protection actions, the decision making processes,...)



- Development of tools, methods, processes to build, maintain and transmit RP culture
 - Identification of needs and concerns of stakeholders regarding RP culture
 - Development of participatory tools
 - Other actions for stakeholder involvement
 - Development of tools / methods / processes to enhance RP culture in specific fields, especially in emergency and late phase nuclear accident preparedness, NORMs activities, radon exposures, Paediatric imaging
 - Identification, with the relevant stakeholders, of processes to maintain/ transfer RP culture through generations
 - Development of guidance for enhancing RP culture in specific exposure situations
 - Development of training schemes



Thank you for your attention