



IRPA

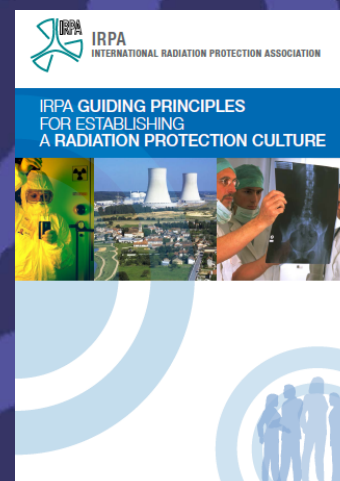
IRPA Guiding Principles for Establishing a RP Culture

Dr. B. Le Guen MD,

IRPA Executive Officer

International Radiation Protection Association

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Education and Training in Radiation Protection: Improving ALARA Culture
Rovinj, Croatia, 7th-9th May 2014*





Role of IRPA : To be the voice of RP professionals

- 49 Associate Societies representing 62 countries ;
- Almost 18,000 individual members

Value and strength of IRPA:

*Enormous resources of **practical knowledge and experience** in radiation protection and neighboring specialist fields*

IRPA provide a medium for communication and advancement of radiation protection throughout the world and has recognised the importance of establishing a sound radiation protection culture





Goal ?

- **From nuclear industry to the medical sector, an IRPA RP culture Guidelines for professionals must be a common document about culture from the perspective of professionals, geared towards professionals**
- The purpose was to capture the opinion and standpoint of RP professionals on what a RP culture must be.
- This statement has been developed in an inclusive and consultative approach





Questions during the IRPA meetings

- ☐ What are the elements of the culture and how could we define it?
- ☐ Is it possible to assess the RP culture and what could be the criteria?
- ☐ How to engage the stakeholders (regulators, operators, professional organizations...) in the process of developing RP culture.
- ☐ What is the role of RP professionals and IRPA AS with regard to RP culture?
- ☐ How is regional culture included?
- ☐ What are the criteria for success?



Safety Culture vs RP Culture

Safety culture is a concept that has been defined by different institutions, organizations, and there is a common understanding of its meaning

- **Safety culture includes nuclear safety, RP, occupational safety, security, health, environmental safety, ...**
- Hence, RP culture in our organizations should be seen as the implementation of RP principles inside the framework of safety culture
- RPC and SC should not be opposed. **RPC is part of SC with peculiarities: both are looking at human errors and the human side of safety.**



What is meant by Culture?



- ❑ The ideas, beliefs and customs that are shared and accepted by people in a society.
- ❑ That complex whole, which includes knowledge, belief, art, morals, law, customs, values, symbols, rituals and any other capabilities and habits, acquired by people as members of society that determine appropriate attitudes and behavior



Culture comes from three sources



- (1) Beliefs, values, and assumptions of the **founders** of an organization,
- (2) Learning **experiences** of group members as the organization evolves, (Groups of people who have shared significant problems, solved them, observed the effects of their solutions, and who have taken in new members)
- (3) Beliefs, values, and assumptions brought in by **new members** and leaders.



Why are we interested in a specific Radiation Protection Culture?

- **Embedding RP at a cultural level within an organization is by far the most effective way of delivering the performance to which we all aspire.**
- To give visibility to the fundamentals of RP
- To promote radiation risk awareness (conscience)
- To promote shared responsibility among practitioners, operators, manufacturers, management and regulators
- To maintain the RP heritage
- To facilitate its transmission
- To improve continuously the quality and effectiveness of RP
- To contribute to the general safety



RP culture development and improvement

- What are the ways to impact radiation protection culture?

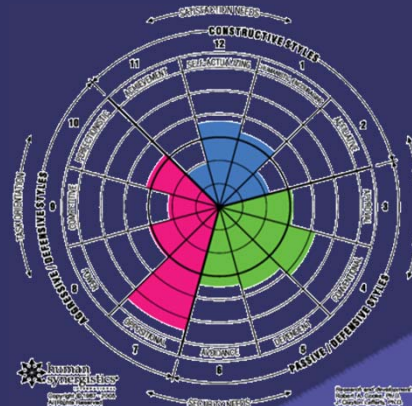


- **Strong leadership,**
- **Education and training,**
- Establishment of **a positive behavior at the working place** (Individual and collective behavior)
- A proper **communication** among all practitioners.
- Similarly, **learning from events**, incidents and near misses is an important part of culture development.



Assessment of RP culture - 1

- A combination of quantitative and qualitative tools is required to assess the level and quality of radiation protection culture,
 - not only to measure the identified criteria of success,
 - but also to stimulate judgments and observations about positive or negative trends for such a given criteria
- Assessment of RP culture relates both to internal and external rules





Assessment of RP culture - 2

- At the local level, a RP application could provide for example:
 - A **formalized procedure** to assure that the workers know the principles of RP
 - A **process to check** if there is an established **internal procedure for refreshing and for updating courses and training** provided to workers and professionals.
 - Formally **entrust the position of the RP expert** with the responsibility to teach and refresh theoretical and practical knowledge and RP related duties;
 - Formalized **self-assessments to evaluate the workers' radiation protection culture** and random checks via **questionnaires filled in by the patients about radiation protection culture**;
 - Check first the existence of a **blame-free policy to report and track errors and near misses in an open and constructive way.**



Assessment of RP culture - 3

- At the level of industrial third parties involved in the supply of RP equipment, the following tools can be applied:
 - **Measure the level of radiation protection culture among vendors of ionizing radiation facilities for nuclear medicine, radiotherapy, diagnostic imaging or industrial applications.** This point may imply the involvement of a regulatory body;
 - Establish a procedure requiring that vendors of ionizing radiation facilities or service providers in this area (maintenance, transportation of sources and other third-party services) should **undergo an external independent audit to establish the existence of an appropriate level of radiation protection culture among the staff directly involved;**
 - **Review relevant documents in order to provide information on the level of radiation protection culture.**



Role of RP professionals

The RP practitioners must be aware that some interaction with wider stakeholders can assist in the development and application of workplace culture

The main stakeholders:

- The workforce (at all levels)
- Senior managers and Directors
- Contractors
- Equipment manufacturers, vendors and suppliers
- Regulators and other authorities
- Medical and health professionals, especially but not exclusively those who are using ionizing radiation,
- Functional leaders and risk managers
- Patients

RP professionals need to:

- Display **strong personal leadership and motivation**
- Develop **a narrative on radiation protection in all exposure situations**
- Develop **relationships with management, the workforce and the regulators**
- Consider following the NRC-style approach **to develop a policy statement on radiation protection culture**



Conclusion

- Developing a “field culture” in addition to the “science, engineering or medical culture” is a way to anticipate problems and to obtain the commitment of all employees.
- Radiation protection culture is **a learned way of life.**
- It must be an **ongoing dialogue**
 - Among safety professionals, organizational management and the workforce
 - Between organizations and relevant stakeholders



Enhancing RP Culture is a Process

- IRPA is committed to publish a final set of Guidelines that incorporates approaches from different countries and regions of the world, from medicine, industry and regulators.



INTERNATIONAL RADIATION PROTECTION ASSOCIATION



1st IRPA Workshop on
Radiation Protection Culture

organised by



International Relation Commission

Monday 14 and Tuesday 15
December 2009

UNION INTERNATIONALE
DES CHEMINS DE FER
16, rue Jean Rey
75015 PARIS



2nd IRPA Workshop on Radiation Protection Culture
Thursday 10 and Friday 11 February 2011



Jornada de Cultura
de la Protección
Radiológica

Día 15 de junio de 2.009

Cátedra Rafael Mariño del Instituto
de Ingeniería de España, Madrid

El objeto de esta Jornada es promover las manifestaciones concretas de la cultura organizativa y su influencia en los recubridores y en la protección radiológica de la instalación y dar a conocer las competencias mínimas y potenciales organizativas necesarias para generar los comportamientos adecuados en organizaciones que requieran elevados estándares de seguridad y seguridad.

La Jornada está dirigida a profesionales de la protección radiológica con responsabilidades sobre la instalación y los procesos que la operan.

CULTURA ORGANIZATIVA, CULTURA DE SEGURIDAD Y DE LA PROTECCIÓN RADIOLÓGICA, INTEGRACIÓN DE LA CULTURA EN EL MODELO DE GESTIÓN, EVALUACIONES PREVIAS DE LA CULTURA, TÉCNICAS DE DIAGNÓSTICO, MEJORA EN LA CULTURA DE LA PROTECCIÓN RADIOLÓGICA, INFLUENCIA DE LOS DIRECTIVOS Y DE LOS GESTORES EN EL DESARROLLO DE LA CULTURA, LIBERAZO, COMPETENCIAS DIRECTIVAS.



con la colaboración de:



tecnatom, s.a.



Conclusion



- The aim is to present these guiding principles at regional congresses due to take place in 2014, which will provide an opportunity for celebrating IRPA's 50th IRPA anniversary,
- **This guideline is a symbol for the IRPA anniversary,**
- **“from the past toward to the future but with a common culture”**
- International Radiation Protection Association
 - <http://www.irpa.net>