EXPLICIT KNOWLEDGE RESULTING FROM INTERVIEWS WITH THE EXPERTS IN THE ARGENTINEAN NUCLEAR REGULATORY AUTHORITY (ARN)

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A considerable number of ARN experts have been retiring for a number of years now, and it is estimated that by 2010 a significant number of them will no longer be working for the agency. We estimate that by then the 20 most important experts would have already retired. At present, ARN has a workforce consisting of 300 employees; with more than 100 of then having been recruited between 2002 at 2006. Unfortunately, from 1994 to 2001 very few people joined the agency. Those who will take over the positions of retirees, have either not been trained yet or are still in the training process. Such a phenomenon raises challenges and a number of issues that should be considered for the mid and long term. Knowledge Management was initiated as a way of facing the above-stated phenomenon.

In 2000, ARN had around 30 officers with a high level of expertise; these officers contributed and continue to contribute significantly to the regulatory activity both at a domestic and international level. By 2010, more than 20 of them will be in the process of retiring or will have already retired.

With a view to solving this problem, the methodology of "history of the learning process" implemented in a number of in-depth interviews with the experts has aimed at retrieving their knowledge and has also allowed us to elucidate a number of issues pertaining nuclear and regulatory knowledge and to detect that a number of institutional training programs, would be critical for efficiently training the new candidates who would ultimately take the places of retiree experts. Even though there are a considerable number of methodologies available to obtain implicit and tacit knowledge from people [1], the above-stated methodology is an example of the contribution to the nuclear sciences by humanistic tools.

The methodology of "history of the learning process" implemented with the technical assistance of Public Administration National Institute in 2006.

At an initial stage, those officers that qualified as experts were interviewed in the course of a week. Areas of involvement and roles played by ARN's staff members were identified and officers who would be knowledgeable of such topics and roles were screened. A preliminary list of experts was created and necessary adjustments were made, as defined by some of the experts who had the chance of reviewing the list. The final list of experts to take part in the process was defined and in-depth interviews with them were conducted.

Initial interviews covered almost 40% of the total number of experts. Efforts were made to begin the interviewing process with retired experts; however, that largely depended on retirees' willingness and availability. It was finally concluded that priority would be given to available staff members, certainly without disregarding the original list.

The interviewing methodology has allowed ARN to code tacit [2] and implicit knowledge resulting from experts' statements. As a result of this technique and among a number of relevant findings, a possible training framework for new officers was identified and planned for the long term. Part of such training framework, aimed at developing officer competencies, may be summarized as follows: For professional staff members with a hard science

background: a) basic training, consisting of Radiological Protection and Nuclear Safety post graduate courses and English courses b) Supplementary training including refresher courses and attendance to national and international congresses; specialized training such as on-the-job training; presentation of research papers in congresses. c) Final Training, including tutorship of incoming staff members and teaching at ARN training and postgraduate courses.

For technical staff members with a hard science background: a) basic training, including the Course on Radiological Protection and Nuclear Safety for technicians and English courses. b) Supplementary training, including refresher courses, on-the-job training, and research. c) Final Training, consisting of tutorships and teaching activities.

Finally, for professional and technical staff members working in the administrative and humanistic areas: a) basic training, consisting of an *ad-hoc* course to introduce them to the ARN and to ARN knowledge, and English courses. b) Supplementary training, including attendance to national and international course and congresses, participation in technical meetings, research activities, etc.

This technique, consisting of an in-depth interview with the experts of a given institution, is probably one of the most straightforward ways of getting access to the institution's implicit and tacit knowledge. In addition, such knowledge can be shared and disseminated among a sizeable number of people, since it is not limited to knowledge transfer between two subjects but it rather aims at expanding knowledge across a given institution.

REFERENCES

[1] "CONSTRUYENDO LA CULTURA del conocimiento en las personas y en las organizaciones " Cuaderno de trabajo 34, SIDEC, Gobierno Vasco, Spain, July 2001

[2] SAME AS ABOVE, pp. 58.