SIX YEAR ENTIRE HIGHER EDUCATION PROGRAMME IN NUCLEAR AND RADIATION TECHNOLOGIES

V. ANISHCHIK, N. GORBACHUK, V. PONARYADOV, A. TIMOSHCHENKO,
A. TOLSTIK, V. UGLOV, Belarusian State University

Minsk, Belarus

Abstract

Belarus is the embarking country in nuclear energy now. The appropriate national human resources programme was stated by the Council of Ministers of the Republic of Belarus in 2008. During the last almost 10 years it was found that the entire six year higher education programme in nuclear and radiation technologies to train directly to the level of Master of Science may be fitted to highest extent to contradictory terms and conditions arisen in Belarus. There are many reasons for that requiring a broad diversity of topics to be studied within one specialty. The main of them are: 1) safety of nuclear and radiation technologies is becoming the ultimate goal of any education and training in the field; 2) growing number of radiation units in different branches, especially, in medicine; 3) restricted number of nuclear facilities including installing nuclear power plant in Belarus; 4) the training resources accumulated during last years in Belarus in the field should be effectively used for long future (dozens of years); 5) the effective education and training system requires appropriate dimension of student groups studying at different specialties and experienced training and auxiliary staff. The number of specialties for entire education and training in nuclear and radiation area in case of Belarus should not be very big but each of them should be uniform in its educational content as much as possible to provide gaining consistent knowledge and skills. Three specialties for the six year entire programme are under consideration now: “Nuclear physics and technologies”, “Nuclear and radiation safety” and “Medical physics”. In all the specialties the topics of nuclear and radiation safety must be placed in specific focus related to aspects of technologies studied. At the same time, the national education programme should contain the core material being equal to all the specialties. The reasons to introduce the six year programme for some of specialties existing in Belarus and their standing nuclear and radiation safety content are discussed in the report. The proposed syllabus will cause the appropriate changes in the structure and content of the system of re-training and professional updating in the field. The possible scheme of roadmaps to train specialists within such renewed system to meet national and, possibly, regional education and training needs, is also discussed. The proposing system despite of the national peculiarities for Belarus may be useful for many of countries rapidly developing nuclear and radiation technologies.