

Implementation of the ICRP 2007 Recommendations in Korea

Kun-Woo CHO*

*Korea Institute of Nuclear Safety, Radiation Standards Development Department
POBox 114, Yuseong, Daejeon, 305-600, Korea*

Abstract

International Commission on Radiological Protection (ICRP) is about to publish new recommendations on radiation protection. International Atomic Energy Agency (IAEA) is also under process in revising its International Basic Safety Standards (BSS) to take into account of the changes of the ICRP recommendations. As soon as the revision of the BSS is completed, Korean government is considering to implement those changes in the BSS and the ICRP recommendations into its national radiation protection laws and regulations. This paper introduces the current activities and future prospects in this matter.

In the 2007 ICRP recommendations, there are some new concepts, principles and quantities such as the changes in the nominal risk coefficient for cancer and hereditary effects, new definitions on the tissue weighting factors and radiation weighting factors for neutron and proton, extended application of the dose constraints in all exposure situations in source-related radiation protection, and the introduction of new system of protection for non-human species.

Based on the study carried out by KINS so far, the following points are identified as major areas that need for further in-depth review and consideration for the implementation of the ICRP 2007 recommendations into Korean radiation protection laws and regulations; changes in the radiation risk factors, radiation weighting factors and tissue weighting factors, maintenance of the ICRP 60 dose limits, practical application of the dose constraints and determination of the reference levels in many source to individual exposure relationships, change from process-based system to exposure situation-based system, strengthening of the principle of optimization in all exposure situations, system of radiation protection for the environment, practical application of the exclusion and exemption principles, active participation of the stakeholders, changes in glossary etc.

The study for the implementation of the ICRP 2007 recommendations into national legislations will be conducted until the end of 2012. In the meantime, draft regulations will be developed and the possible impact on the nuclear industry will also be analyzed and active involvement of the stakeholders including licensees will be encouraged in the entire process of implementation of the ICRP 2007 recommendations into Korean radiation protection laws and regulations. The final draft of the revised laws and regulations will be issued in the early of 2013 and the formal legislation process of this final draft will commence in due course.

KEYWORDS: *ICRP recommendations, IAEA Basic Safety Standards, laws and regulations.*

* Presenting author, E-mail: kwcho@kins.re.kr