The analysis of the recent economic and social aspects important for the management of the radiation protection in the Czech Republic

Karla Petrová¹⁾, Pavel Danihelka²⁾, Vladislav Klener³⁾, Ladislav Tomášek³⁾, Pavel Praks²⁾, Šárka Žídková²⁾, Julie Volfová²⁾, Pavla Hermanová²⁾, Veronika Kapsiová²⁾,

- 1) The State Office for Nuclear Safety, Senovazne namesti 9, Prague 1, the Czech Republic, karla.petrova@sujb.cz
- 2) Technical University of Ostrava, Faculty of Safety Engineering, Ostrava, the Czech Republic
- 3) The State Institute for Radiation Protection, Prague 10, the Czech Republic

Abstract. The management system of the radiation protection in the Czech Republic is using already more that ten years as a one tool a monetary value of man Sv. The appropriate values are published in the Decree on radiation protection and they are distinguished for different types and levels of exposure. The derivation of these values has been done about 15 years ago based on studies performed at the 90's. Recently the State Office for Nuclear Safety initiated a new pilot study with the following scope

- to analyze the current economic approaches and techniques used for the determination of the monetary statistical value of the human life under new economical, political and social conditions,
- to design the mathematical model for the determination of the lost production and to gain economic and demographic data necessary for the calculation,
- to organize a pilot survey of the public opinion in the Czech Republic with the accent on the detriment caused by ionizing radiation and on the willingness to pay for the averted risk or to accept the compensation of the elevated risk

The first evaluation of the results shows that a new evaluated values are not significantly different for the currently used values in the legislation. Although the approaches of the life value estimation are different the valuation is relatively consistent and the average value of the statistical life fall into the range between 300 – 350 thousands CZK (app.10-13 ths EUR) per one year of life.

The study confirmed a fact that the optimization of the processes covering the threat of the human health and life is very complicated, complex and demanding a multidisciplinary approach. The study and research will continue in the future focusing to the particular aspects of the problem.

The poster will describe in details the methods used and will present the results achieved.