

# **Analysis on Occupational Exposure of Radiation Workers in Korea based on KISOE Database (2005-2014)**

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Korea Information System on Occupational Exposure (KISOE) is in operation at Korea Institute of Nuclear Safety (KINS). It is to analyze the occupational exposure of radiation workers in Korea for the purpose of improvement of radiation protection program for radiation workers. It has databases of dose records of occupational exposure for radiation workers in various fields including nuclear energy, industry, research, education and medical application, etc.

Various types of temporal trends on occupational exposure were analyzed by using database of KISOE. The Analyses were performed on temporal trends of number of licensees, radiation workers, annual collective dose and annual average dose for 10 categories of license types over a period of recent 10 years (2005 ~ 2014).

Number of radiation workers has increased about 5% annually during 2005~2012. However, during 2013~2014, number of radiation workers didn't increase. More accrued data are necessary to decide whether the recent trend on the stagnation in number of radiation workers is temporary or not. During 2005~2014, annual collective doses have been kept at the same level and annual average doses have continuously gradually decreased for various fields including nuclear power plants, but not for the field of non-destructive test (NDT). In the case of NDT, annual collective doses and annual average doses have increased much during 2011~2013. But, in 2014, annual collective dose and annual average dose decreased in comparison with 2013. It is thought that the increment and decrement in NDT field is due to the settlement of the thorough radiation safety management. Based on the analyses, it could be concluded that radiation protection programs for radiation workers have been continuously improved in Korea.

Keywords: KISOE, Occupational Exposure, Radiation Protection, Radiation Worker, Korea