Korea Hydro & Nuclear Power Co., Ltd has established and consistently carried out 3 phased dose reduction plans to decrease collective radiation exposure of nuclear power plant workers since 1992. As a result, KHNP successfully reduced average dose to 0.53 man·Sv/unit·yr in 2013. The purpose of the paper is to describe how KHNP has accomplished long-term dose goal and will establish the fourth phase reduction plan in order to ensure global competitiveness in terms of radiation dose.