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Strengthening Radiation Protection of Workers –Twenty Years of Progress  
and the Way Forward**

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## **OPERATIONAL RADIATION PROTECTION AT THE TEHRAN RESEARCH REACTOR TRR**

### **Abstract**

The research reactor TRR is in operation more than 50 years; at the same time the reactor technical condition allows its further safe operation in the case of upgrading of some systems and elements. The basic objective of the reactor modernization implies future utilization complying with the nuclear and radiation safety requirements. The radiation protection system is the subject of such modernization. An overview of the technical and organizational measures aimed on the radiation protection of staff and population at the reactor routine operation is presented. The amount emission rates of Kr and Xe noble gas are measured in TRR. Measuring noble gases is very important in maintaining the health of reactor staff. Long-term experience of the RPS operation has demonstrated its adequacy and efficiency. The reactor operation has negligible influence on environment and cannot be a reason of any negative ecological changes. The amounts of radioactive substances released to the environment from the research reactor and off site radiation dose levels for personnel are under control and in the range.

### **Keywords**

Research reactor, Radiation protection, Staff exposure, radioactive release, Radiation monitoring, noble gas

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