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Optimization of Locations and Number of NPP ARMS Posts

The paper states that requirements for the arrangement of network of automated radiation monitoring posts at Ukrainian NPPs are not fully implemented. It is proposed to use a methodical approach considering environmental, physical and technical factors, peculiarities of NPP emission plume generation and spreading to optimize the number and locations of ARMS posts with sensors for measuring gamma dose rate in NPP control area. Practical implementation of the methodology was performed by the example of Khmelnitsky NPP. The experts developed the basic layout of ARMS gamma sensors in the control area for two NPP power units.

Keywords: automated radiation monitoring system (NPP ARMS), monitoring posts, procedure to optimize network of ARMS posts, control area, Khmelnitsky NPP.