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Application of the automated and robotic gamma-spectrometric complex for radiation hazard situation assessment

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This abstract discusses the design and application areas of the automated and robotic gamma spectrometric complex (ARGSC) developed by the employees of the radiation laboratory of the National Research Nuclear University "MEPhI". The basis of ARGSC is a xenon gamma detector with high spectrometric and operational characteristics. The designed complex is intended for detecting and registering ionizing radiation fluxes, also identifying radioactive sources. Operational experience has shown the need to improve the visualization of data obtained from sources of radioactive radiation using ARGSC. The development of a system for visualizing the direction of arrival of ionizing radiation to search for and more accurately determine the localization of sources, as well as to assess and measure the intensity of fluxes, has been initiated.

After modernizing ARGSC, it is planned to test it in laboratory and field conditions with the aim of further using it for assessing and controlling the radiation environment in nuclear facilities and in environmental monitoring of territories.

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