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## The Use of the Radioactive Isotops for a Cheating in Gambling - An Interaction Between Different Authorities

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The investigation of use of radioactive isotope  $^{125}\text{I}$  as a radioactive marker for playing dice is presented in light of interaction between different government regulating bodies.

During a routine check at the border cross at Chinggis Khan international airport, the detector was triggered, indicating the presence of a radioactive substance in the bag of an incoming passenger. Three gaming dice with elevated radioactivity were discovered and sent to the Radiation Control Laboratory for the further analysis. The laboratory analysis showed that the side with four points was painted with paint containing  $^{125}\text{I}$ . Spectral analysis showed characteristic X-ray and Gamma ray lines and decay half-life time, found by comparing the intensities of two measurements done two months apart, prove that the paint contains the  $^{125}\text{I}$  isotope.

This investigation became possible thanks to the comprehensive array of radiation monitoring systems working in 15 check points around the Mongolian borders to check passengers, cars and trains crossing the international border. The monitors are capable detecting neutron and gamma radiation.

### Country and/or Institution

Nuclear Energy Agency of Mongolia

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