

-85Kr Monitoring In North-West Region of Russia

⁸⁵Kr monitoring in USSR-Russia was ceased in 1993, ⁸⁵Kr concentration activity was 0.9 -0.92 Bq/m³. The monitoring of Xe and ⁸⁵Kr radionuclides was renewed since August 2006, and was arranged at the sampling station in Cherepovets city, located in 220 km northward from the Kalinin NPP. Kr-Xe gas mixture was filled in balloon with charcoal and transported to Radium Institute. For the period of monitoring in Cherepovets city concentration activity of ⁸⁵Kr, varied from 1.3 to 1.8 Bq/m³ and amounted to 1.55 ± 0.12 Bq/m³ in average. For the period since ⁸⁵Kr monitoring cessation in Russia its atmospheric activity has grown approximately 1.5 times, and at present the results obtained for the North-West region of Russia correspond to the data for Europe and Japan. Mean ⁸⁵Kr concentration activity in atmospheric air in St.-Petersburg made up 2.11 ± 0.66 Bq/m³, which is 37% higher than that in Cherepovets. Air masses with increased ⁸⁵Kr content are mainly transferred from the west and the south-west, i.e. from NPPs location regions. Air masses with lowered ⁸⁵Kr concentration moved from the North (Greenland Sea, Northern and Norwegian Seas), where there are no NPPs located, which could discharge accumulated ⁸⁵Kr. Data of ⁸⁵Kr monitoring in 2012-2013 are presented.

Primary author: DUBASOV, Yuri (Khlopin Radium Institute)

Presenter: DUBASOV, Yuri (Khlopin Radium Institute)

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