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Kr-85 Monitoring in North-Western Region of Russian Federation

Kr-85 monitoring in USSR-Russia ended in 1993, at that time it concentration activity was 0.9 -0.92 Bq/m3. The monitoring of Xe and Kr-85 radionuclides was renewed in August 2006, and was arranged at the sampling station in Cherepovets city, located 220 km north of the Kalinin NPP. A balloon was filled with the Kr-Xe gas mixture with charcoal and analysed on the Radium Institute. For the period of monitoring on 2006-2008 in Cherepovets city the concentration of Kr-85 varied from 1.3 to 1.8 Bq/m3 and amounted to 1.55 ±0.12 Bq/m3 in average. The mean Kr-85 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 Kr-85 content are mainly transferred from the West and the South-west directions, i.e. from NPPs location regions. Air masses with a lowered Kr-85 concentration moved from the North (Greenland Sea, Northern and Norwegian Seas), where there are no NPPs located. Kr -85 concentration activity in old gas balloon (1995) was measured. The data Kr-85 monitoring in 2012-2016 are presented.

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