

RESEARCH OF THE VERTICAL SOIL PROFILES MIGRATION OF THE CHORNOBYL ORIGIN MEN-MADE RADIONUCLEIDES IN POLESIJA

**M. D. Bondarkov, M. V. Zheltonozhskaya, A. I. Lipskaya,
L. V. Sadovnikov, V. V. Tokarevsky**

The research of migration of Chernobyl origin radionuclides was carried out in vertical soil profiles of the «Ryzhyj les» waste disposal area within 5 km ChNPP zone. The 1122-soil samples were selected during 2000 - 2001 years. The γ -, β - and X-emanation of these samples were studied after corresponding preparation. The $^{134,137}\text{Cs}$, $^{154,155}\text{Eu}$, ^{241}Am and $^{238+239+240}\text{Pu}$ isotopes were identified. The ($^{90}\text{Sr} + ^{90}\text{Y}$) isotopes were identified in equilibrium as a result of the research of the “non thin” layers samples β -spectra.. The $^{238+239+240}\text{Pu}$ isotopes were determined by L_x -emanation spectroscopy of U and Np. The migration of $^{134,137}\text{Cs}$, $^{154,155}\text{Eu}$, ^{90}Sr , ^{241}Am isotopes was observed to the depth up down 30 cm, and the $^{238+239+240}\text{Pu}$ migration was observed to the depth of 10 ÷ 15 cm. The obtained data is discussed.