

РАДИОЭКОЛОГИЧЕСКАЯ ХАРАКТЕРИСТИКА
**RADIOECOLOGICAL CHARACTERISTICS OF KAMCHATKA AT
BACKGROUND LEVEL AND IN ORE OBJECTS IMPACT AREAS**

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Background concentrations of Th and U in soils and surface waters of Kamchatka are significantly lower than their clark for the mentioned natural environments. Power level of the exposure dose of gamma radiation (EDR) above the ground surface (in average, 10-11.5 mcR/h in the South and 8-9.5 mcR/h in the North of the peninsula) is significantly less than the natural level of this parameter for the open mountain territories in the central Russia. The specific activity of ²²⁶Ra, ²²⁸Ra, ²²⁴Ra, ²³²Th and ⁴⁰K in the bottom deposits of the water courses does not exceed the typical natural background level for soils, subsoils and rocks. Natural radiogeochemical backgrounds of studied natural environments in Kamchatka are chiefly determined by the composition of volcanic ashes, which form the mineral basis for soils on the peninsula. These backgrounds are higher within the Southern soil province compared to the Northern soil province. Radiogeochemical anomalies and abnormal EDR spatially are confined to the known sulfide copper-nickel ore objects in Kamchatka. This allows us to recommend the radiometric study of the territories as an additional method to search the copper-nickel deposits on Kamchatka.

Keywords: uranium, thorium, gamma-radiation, background, anomalies, copper-nickel mineralization of Kamchatka.