

Valentine Protsak, Oleg Voitsekhovych and Gennady Laptev. 2020. Estimation of radioactive source term dynamics for atmospheric transport during wildfires in Chernobyl Zone in spring 2020.

**Abstract:** Massive wildfires took place in Chernobyl zone in April 2020. We present estimation of wildfires areal spread during the outbreak and radioactive source term dynamics for atmospheric transport on daily basis. Overall area affected by wildfires was estimated as 870 km<sup>2</sup>. Radioactive source term for atmospheric transport was assessed as 630GBq, 13.5GBq and 59MBq for <sup>137</sup>Cs, <sup>90</sup>Sr and sum of isotopes of Plutonium, respectively. These values didn't bring to radiological concern for population of Ukraine and European countries. Presented estimates were in good agreement with the results of reverse modelling exercises performed by IRSN and SKC CEN.