

Impact of wastewater releases from Temelín nuclear power plant on tritium content in Vltava River

Abstract

This paper deals with the impact of Temelín NPP wastewater releases on the content of tritium at Prague-Podolí profile of the Vltava River in the period 2001–2007. Since 2002, an increase of the tritium activity was recorded here. The measured activity in Prague-Podolí has been observed in the relation to the daily flow rates. No significant dependency between the tritium activity and the daily flow rates could be proved. The reason is the impact of manipulations at the Vltava River reservoirs on the tritium flow time from Temelín NPP to Prague-Podolí. The results showed that the measured tritium activity in Prague-Podolí agree with the data of the Temelín NPP concerning the released tritium activity. The measurements confirm that the annual limit value for allowed wastewater releases from Temelín NPP was not exceeded. The emission standard of the permissible pollution of surface waters was saturated from 0,65 % at the maximal measured activity of 26,6 Bq/l in February 2004. At the same time the target value of 100 Bq/l for drinking water was also not exceeded.