

“Internal Exposure at Cernavoda NPP”

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The Cernavoda Nuclear Power Plant Units 1 and 2 in Romania are nuclear reactors of the CANDU6 type. The CANDU type is heavy water moderated and heavy water cooled, and the formation of tritium poses a problem. Around 97% of tritium is produced from the moderator. Tritium exposure takes place mainly inside the primary heat transport (PHT).

Although internal exposure because of the rise of heavy water steam of tritium became an issue at the Cernavoda Nuclear Power Plant Units 1 and 2 for three years from 2004 to 2006, the contribution of internal exposed dose to the total collective dose was reduced to 30.7% in 2007 by taking measures and protection steps. This presentation is concerned with trying to unfold the causes and examining measures to take in the meantime.

