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Letter to the editor

Comment on “Radon-222 signatures of natural ventilation regimes in an underground quarry [Journal of Environmental Radioactivity 71 (2004) 17–32; 72 (2004) 369–370]”[☆]

In the corrigendum (Perrier et al., 2004), the authors wrote: “A second problem in our dose estimation was the choice of the value for the *DCF*. At a breathing rate of 1.5 m³/hour (light exercise), we used a range from 16 to 23 mSv/WLM (Nikezic et al., 2002). The commonly used value for the *DCF* is however 5 mSv/WLM (Porstendörfer, 1994). A conservative range for the *DCF* is therefore from 5 to 20 mSv/WLM.”

From reading this paragraph, the readers might be confused between the epidemiologically and the dosimetrically derived *DCF* values, and we feel some clarifications will be beneficial to the readers. The results reached in our paper (Nikezic et al., 2002) were dosimetrically derived *DCF* values, while the value 5 mSv/WLM is an epidemiologically derived *DCF* value. In the last paragraph of the Introduction of that paper (Nikezic et al., 2002), we wrote that “... a well-known paradox in radon research is the significant discrepancy between the calculated *DCF* and the epidemiologically derived value. ... The second objective of the paper is to explore whether the use of approaches other than that of ICRP66 will help alleviate the discrepancy between the *DCF* values.”

In fact, the paper quoted by the authors (Nikezic et al., 2002) represents only one of our attempts to alleviate the discrepancy between the epidemiologically and the dosimetrically derived *DCF* values. Other studies include those on the effect of different lung morphometry models (Nikezic et al., 1999), different ethnic groups (Yu et al., 2001), bifurcation of the human tracheo-bronchial tree (Nikezic and Yu, 2003a; Nikezic et al., 2003), quality factors (Nikezic and Yu, 2003b), sensitivity of target cells (Nikezic and Yu, 2001a, 2002a,b) and micro-dosimetry (Nikezic and Yu, 2001b).

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