Andersson et al. Proposed numerical benchmark values JER

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Criteria are needed to be able to judge the level of risk associated with dose rates estimated for nonhuman biota. In this paper, European guidance on the derivation of predicted no-effect chemical concentrations has been applied to appropriate radiation sensitivity data. A species sensitivity distribution fitted to the data for all species resulted in a generic predicted no-effect dose rate of 10 Gy h^{-1}. Currently, data are inadequate to derive screening values for separate organism groups. A second, higher, benchmark could aid in decision making by putting results into context on the scale of no effect to a risk of 'serious' effect. The need for, meaning and use of such a value needs to be debated by the wider community. This paper explores potential approaches of deriving scientific input to this debate. The concepts proposed in this paper are broadly consistent with the framework for human protection.

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