



**The Application of National and International Guidelines in the Assessment of  
the Radiological Quality of Drinking Water**

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The World Health Organisation has developed international guidelines for drinking water quality which define acceptable levels of contaminants including radionuclides. These guidelines were the basis for the recent Australian water quality guidelines developed by the National Health and Medical Research Council in conjunction with the Agriculture and Resource Management Council of Australia and New Zealand. This paper highlights some of the practical problems in applying the guidelines in the assessment of groundwater supplies in Australia where the radium content of the water may be significant and the presence of other dissolved minerals can create difficulties in the analytical procedures. Generally, screening methods are based on the determination of gross alpha and beta radioactivity and the limitations of these techniques are discussed. The issue is also addressed as to the appropriate actions in the event of guideline values for specific radionuclides being exceeded.