

## NUCLEAR ENERGY SERIES

<b>Provisional Title</b>	<b>Stewardship for Post-Remediation Management of Radioactively Contaminated Land</b>
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### RATIONALE

For many years, the default approach for remediation has been to remove the contaminant source. This approach can be prohibitively expensive and have a detrimental impact on the surrounding environment. However, remediation is about breaking the pollutant linkage and therefore managing contamination in situ using controls may be an optimal approach. To ensure controls are maintained for as long as necessary, a steward will be required. The steward will be the legal and financial liability holder and is responsible for administering activities in the stewardship programme such as monitoring and maintenance of the site. Controls might be physical, to limit or prevent access to the contamination, or administrative to establish the ‘restricted use’ of land and / or resources. Controls might be required for a few decades or in perpetuity depending on the characteristics of the contaminants and the site.

The last IAEA publication on using controls for contaminated land was published in 2006 (*Management of Long Term Radiological Liabilities: Stewardship Challenges* Technical Report Series no. 450). This publication is now considered to be out-of-date; the terminology and the approaches regarding controls have changed and developed since 2006. Furthermore, Member States experience has increased in the intervening 15 years and there is an opportunity to document good practices, lessons learned as well as articulate the new challenges encountered in the implementation of controls. TRS no. 450 included a number of case studies and there is an interesting opportunity to review and revise them to reflect on what has been learnt and what has changed over the last 15 years.

Two important IAEA projects have concluded which both interface with this topic. The update of Safety Guide No. GSG-15 *Remediation Strategy and Process for Areas Affected by Past Activities or Events* (in preparation; replaces Safety Guide No. WS-G-3.1) which explains the overall remediation process and identifies the concept of restricted use where controls are necessary to maintain on-going safety. The development of the NE Series publication on *Determination of Environmental Remediation End States* (also in preparation), describes decision making process and key factors in defining the end state for a site. Where residual land contamination exists then controls will be used as part of the end state for the site.

### OBJECTIVE

The objective of the report is to document the key principles, concepts, and Member State experience in the use of stewardship for contaminated land sites. This will include recording the types of controls that can be used with their benefits and challenges. The publication will present Member State case studies and highlight the good practices, successes, and challenges.

### SCOPE

All sites where land contamination is present (e.g. NNP, fuel cycle sites, research sites, mining and mineral processing, NORM, former weapons and defence, etc.

All sites planning controls or under controls prior or following remedial activities to address land contamination.