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Sommario/riassunto

Excellent water quality in research reactors and spent fuel wet storage facilities is essential to prevent degradation of research reactor components and aluminium clad fuel elements, and to achieve optimum storage performance. A lot of information is available in the open literature on this subject, but no comprehensive document addressing the rationale of water quality management in research reactors has been published so far. This publication is intended to fill this gap by providing a comprehensive catalogue of good practices for management of water quality. It is intended to assist research reactor managers and operators in implementing water quality programmes in their facilities. Once implemented, such programmes will help to improve the performance of the reactor, provide natural life extension and minimize corrosion in both research reactor internals and spent fuel cladding in wet storage facilities, thus maintaining its integrity and safety until the spent fuel can be moved to a dry storage facility, is submitted for final disposal or reprocessing.