1. Record Nr. UNINA9910891098903321

Titolo	La controversia ermeneutica / K. H. Stierle ... [et al.] ; a cura di Giuseppe Nicolaci
Pubbl/distr/stampa	Milano, : Jaca book, 1989
ISBN	88-16-95060-9
Descrizione fisica	195 p. ; 23 cm
Collana	Edizioni universitarie Jaca ; 60
Disciplina	121.68
Locazione	FLFBC DARST
Collocazione	DAM A35 STRK 01 DE FUSCO 764
Lingua di pubblicazione	Italiano
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9911006529803321

Titolo	Good practices for water quality management in research reactors and spent fuel storage facilities
Pubbl/distr/stampa	[Place of publication not identified], : International Atomic Energy Agency, 2011
ISBN	1-5231-3004-0 1-280-12788-0 9786613531766
Edizione	[1st ed.]
Descrizione fisica	1 online resource (151 pages)
Soggetti	Water quality management Spent reactor fuels
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
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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.