



NRC Decommissioning Guidance Update (NUREG-1757 Revision)

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HIGHLIGHTS

- NUREG-1757 provides guidance on acceptable methods and approaches, for use by licensees, NRC staff, and others
- Proposed updates published for public comment in September 2005
- Significant public comments from States and others, on most new issues, especially regarding restricted use and institutional controls
- Comments were addressed and guidance was finalized in 2006. Instead of issuing a final version of Supplement 1, guidance has been incorporated in Vol. 1, Rev. 2, and Vol. 2, Rev. 1.
- Volume 3 to be updated with legacy sites rulemaking

ACRONYMS

DP	Decommissioning plan
EB	Engineered barrier
EPA	U.S. Environmental Protection Agency
FSS	Final status survey
IC	Institutional control
LTP	License termination plan
LTR	License Termination Rule (10 CFR 20, Subpart E)
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual

VOLUME 1:

Decommissioning Process for Materials Licensees

- **Applicability:** Fuel cycle, fuel storage, and materials licensees (but not uranium recovery facilities), limited applicability to reactor licensees
- **Overview:** Guidance on decommissioning plans (DPs) and related compliance documents, including aspects of site description and current radiological conditions, decommissioning activities, management, quality assurance, and changes to approved DPs. Guidance to NRC staff on processing DPs and license amendments.

CONTENTS

- Decommissioning process for licensees and NRC staff, for different types of licensees and decommissioning situations
- Summary of radiological (dose) criteria for decommissioning
- Content of DPs and staff evaluations of DPs
- Safety evaluation report outline and template
- Inspections and surveys
- National Environmental Policy Act compliance
- Other issues for decommissioning

WHAT'S NEW OR UPDATED?

- Restricted use and institutional controls (ICs)
 - Revised guidance on restricted use and appropriate institutional controls, seeking advice from affected parties, total system approach for protection, and long-term monitoring
 - IC options involving NRC oversight: long-term control license and legal agreement with restrictive covenant
- Onsite disposal under 10 CFR 20.2002
 - Generally limit onsite disposals to "few millirem" per year
 - LTR criteria includes dose from onsite disposals
- Intentional mixing of contaminated soil
 - Intentional mixing to meet waste acceptance criteria of disposal facility
 - Intentional mixing to meet the LTR release criteria should: be part of an overall ALARA approach to site cleanup; not increase the contamination footprint; and not use clean soil
- Current approach to releases of solid materials (clearance) added

VOLUME 2:

Characterization, Survey, and Determination of Radiological Criteria

- **Applicability:** All licensees subject to the License Termination Rule (LTR)
- **Overview:** Guidance on technical aspects of DPs, license termination plans (LTPs) and related documents, for demonstrating compliance with the LTR, especially regarding final status surveys (FSS) and dose assessments.

CONTENTS

- Radiological surveys
 - Facility radiation surveys, including scoping, characterization, remedial action support, and final status surveys (FSS)
 - FSS: implementing MARSSIM, simple methods and double sampling, survey data quality and reporting
 - Ground water and surface water characterization
- Dose modeling
 - Criteria for conducting screening dose modeling evaluations
 - Technical basis for site-specific dose modeling evaluations
 - Special issues, including methodology for buried material, dose modeling for partial site release, and alternate exposure scenarios
- ALARA: including good practice efforts and cost-benefit analyses

WHAT'S NEW OR UPDATED?

- Realistic exposure scenarios
 - Compliance may be based on reasonably foreseeable land uses (land uses likely within the next 100 years, considering trends and area land use plans). Dose analysis performed for 1000-year compliance period.
 - Licensee should also evaluate less likely, but plausible, scenarios to assess sensitivity of dose to the scenario assumptions
- Engineered barriers (EBs)
 - Risk-informed graded approach for use and analysis of EBs
 - For compliance analyses, degradation of EBs must be addressed
- Removal of material after license termination: certain material may be left in building structures onsite at license termination

VOLUME 3:

Financial Assurance, Recordkeeping, and Timeliness

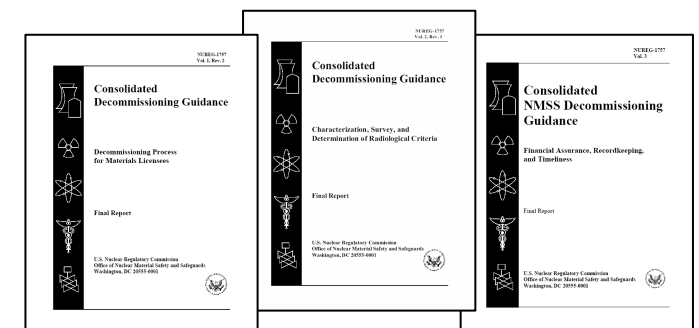
- **Applicability:** Fuel cycle, fuel storage, and materials licensees (but not uranium recovery facilities)
- **Overview:** Guidance on compliance with "Timeliness in Decommissioning of Materials Facilities" (Timeliness Rule). Guidance on financial assurance, including decommissioning funding plans and financial instruments. Guidance on recordkeeping plans and requirements.

CONTENTS

- Timeliness: milestones for notification, DP submittal, initiation and completion of decommissioning
 - Timeliness applies to onsite burials
 - Extensions and alternative schedule
- Recordkeeping: during operations, information for DP, license transfer or termination, records retained by NRC after termination
- Financial Assurance
 - Decommissioning funding plan and cost estimate
 - Certification of financial assurance
 - Financial instruments: types of instruments, handling documents
 - Bankruptcy
 - Approving disbursement from decommissioning fund

WHAT'S NEW OR UPDATED?

- No updates at this time; will be updated with legacy sites rulemaking



<http://www.nrc.gov/about-nrc/regulatory/decommissioning/reg-guides-comm.html>