



U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REGULATORY RESEARCH

July 1989  
Division 3  
Task DG-3001

DRAFT REGULATORY GUIDE

Contact: F. P. Cardile (301) 492-0171

RECORDS IMPORTANT FOR DECOMMISSIONING FOR  
LICENSEES UNDER 10 CFR PARTS 30, 40, 70, AND 72

A. INTRODUCTION

The general requirements for applications for license termination and decommissioning\* of nuclear facilities are contained in 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"; 10 CFR Part 40, "Domestic Licensing of Source Material"; 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material"; and 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste."

On June 27, 1988 (effective July 27, 1988), the Commission amended its regulations in 10 CFR Parts 30, 40, 70, and 72 concerning specific criteria for decommissioning nuclear facilities (53 FR 24018). On August 19, 1988, the Commission additionally amended its requirements in 10 CFR Part 72 (53 FR 31651). Amended 10 CFR 30.35(g), 40.36(f), 70.25(g), and 72.30(d) require licensees to keep records on information important to safe and effective decommissioning in an identified location until the license is terminated by the Commission. These sections also identify the kinds of information the Commission considers important to decommissioning.

\*Decommissioning means to safely remove nuclear facilities from service and reduce residual radioactivity to a level that permits release of the property for unrestricted use and termination of license.

---

This regulatory guide is being issued in draft form to involve the public in the early stages of the development of a regulatory position in this area. It has not received complete staff review and does not represent an official NRC staff position.

Public comments are being solicited on the draft guide (including any implementation schedule) and its associated regulatory analysis or value/impact statement. Comments should be accompanied by appropriate supporting data. Written comments may be submitted to the Regulatory Publications Branch, DFIPS, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Copies of comments received may be examined at the NRC Public Document Room, 2120 L Street NW., Washington, DC. Comments will be most helpful if received by October 6, 1989.

Requests for single copies of draft guides (which may be reproduced) or for placement on an automatic distribution list for single copies of future draft guides in specific divisions should be made in writing to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Director, Division of Information Support Services.

---

This draft regulatory guide has been developed in conjunction with the decommissioning rule amendments and is being published for public comment. The purpose of this guide is to provide guidance concerning the specific information that should be kept and maintained in the decommissioning records regarding the radiological conditions at the facility that could affect occupational and public health and safety during decommissioning.

Any information collection activities mentioned in this draft regulatory guide are contained as requirements in 10 CFR Parts 30, 40, 70 and 72, which provide the regulatory basis for this guide. The information collection requirements in 10 CFR Parts 30, 40, 70, and 72 have been cleared under OMB Clearance Nos. 3150-0017, 3150-0020, 3150-0009, and 3150-0132, respectively.

## B. DISCUSSION

In planning for the actual decommissioning of a facility, it is necessary to have as complete knowledge as possible of the existing radiological conditions. As required by 10 CFR 30.36, 40.42, 70.38, or 72.54, the decommissioning plan must contain a description of planned decommissioning activities and a description of methods used to assure protection of workers and the environment against radiation hazards during decommissioning. To develop these descriptions, information is needed such as levels and locations of radiation and quantities of specific radionuclides that would be important to the safe and effective decommissioning of the facility. Certain areas to be decommissioned may not have been readily accessible during normal operations, but workers could come in contact with them during decommissioning operations. Knowledge of radiological conditions will serve to facilitate decommissioning by minimizing occupational exposure and reducing the risk of any public exposure.

The decommissioning plan would include records of spills or other unusual occurrences that took place during the conduct of licensed activities where contamination may remain, up-to-date drawings of restricted areas where radioactive materials are present, and drawings of locations of possible inaccessible contamination. Records of such information would indicate conditions in the facility that could adversely affect health and safety, and these records could be used to minimize radiation exposure during decommissioning activities. For example, the decommissioning records would contain information on radiation

sources that could otherwise be forgotten over the period of operation, such as buried pipes contaminated with radioactive material. Hence the amended rule sections require that records be kept of spills or unusual occurrences resulting in contamination remaining after cleanup procedures or when contaminants may have spread to inaccessible areas. The amendments also require that records be kept of as-built drawings, modifications of structures and equipment in restricted areas where radioactive materials are used or stored, and locations of possible inaccessible contamination.

### C. REGULATORY POSITION

This section describes methods of implementing the general requirements for recordkeeping for licensees who must comply with 10 CFR 30.35(g), 40.36(f), 70.25(g), or 72.30(d).

#### 1. GENERAL

1.1 The location of the decommissioning records should be clearly identified and designated to contain records and information important to safe decommissioning.

1.2 Information related to decommissioning need not be submitted to the NRC as it is collected and filed, but the necessary documents should be maintained in appropriate files and be available for inspection upon request by the NRC.

1.3 Pertinent documents such as licensee operating procedures and incident reporting requirements should specify the type of information to be kept and the means for retention and updating of the records.

1.4 Records may be originals, copies, or clear and specific references to documents in other files. The information may be kept in a microform provided the microform is capable of producing a clear and legible copy after storage until the license is terminated. Computerized records systems may be used provided the other provisions of this guide (e.g., provisions for retrievability, protection against damage and loss) are followed.

1.5 The records should be protected against damage and loss (e.g., fire, theft, misplacement). The records should be updated as necessary, at least annually, to include pertinent new information such as recent unusual occurrences or facility modifications.

1.6 There should be provisions for efficient retrieval of the records at the time of decommissioning so that the records can be used as part of decommissioning planning.

1.7 Licensee operating procedures should contain a clear definition of responsibility for collection, retention, maintenance, updating, and recall of the decommissioning records.

1.8 Decommissioning records should be reviewed by licensee management, at least annually, to ensure their completeness and ability to serve their intended function.

## 2. REFERENCES TO OTHER RECORDS

Paragraphs 30.35(g), 40.36(f), 70.25(g), and 72.30(d) indicate that, if records of information relevant to decommissioning are kept for other purposes, reference to those records and their locations may be substituted. If reference is made to other records, the following should be considered:

2.1 There should be an entry in the decommissioning records referring to the other record. The reference should be clear and specific, providing at least a one-sentence description of the subject and providing the referenced file location.

2.2 The licensee's procedures should contain provisions to avoid loss of the information in the original document in the referenced file in case that file is destroyed before the license is terminated, for example, by cross-referencing the original document or its file to the decommissioning records. Records that are referenced but not included in the decommissioning records themselves should be so labeled and marked not to be removed or destroyed without approval by the individual responsible for maintaining decommissioning records.

2.3 It is acceptable to reference reports made under other regulatory requirements concerning spills. However, the record for decommissioning purposes should specifically consider the contamination levels remaining after any cleanup activities.

### 3. CONTENT OF DECOMMISSIONING RECORDS FILE

3.1 Paragraphs 30.35(g)(1), 40.36(f)(1), 70.25(g)(1), and 72.30(d)(1) state that records are to be kept of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site; that the records may be limited to instances when contamination remains after any cleanup procedures or when there is reasonable likelihood that contaminants have spread to inaccessible areas; and that the records should include any known information on involved nuclides, quantities, forms, and concentrations.

3.1.1 The records should contain a description of the spill or occurrence (including the date), cleanup activities taken, and the location of the remaining contamination. Inaccessible areas would be areas beyond those normally encountered in operations, such as cracks in concrete, seepage into wood or tile, seepage into equipment and components, or areas behind, below, or obstructed by equipment or structures. The records should contain sketches, diagrams, or drawings marked to show areas of contamination and points where radionuclide and radiation measurements were made.

3.1.2 The records should contain information related to site characterization, including information on radiological spills on the site, residual soil contamination levels, principal contaminant radionuclides, on-site locations that may have been used for burial of radioactive materials, and any problems with the hydrology and geology if the site contained or still contains settling ponds, lagoons, or other potential sources of groundwater contamination.

3.1.3 As noted above in Regulatory Position 3.1, the records are to clearly indicate the specific radionuclides involved and the locations, quantity, form, and concentration of the radionuclide contamination, where known, and the basis for this information.

3.1.4 Only radionuclide contaminants with half-lives greater than 6 months and with levels indicated in Regulatory Position 3.1.5 need be included in the record.

3.1.5 Only records on contamination that could impact decommissioning methods, costs, or occupational exposures should be included in the record file. This includes contamination levels above those that would normally be allowable for unrestricted release. Acceptable levels for unrestricted release should be specified by license condition, or otherwise approved by NRC.

3.2 Paragraphs 30.35(g)(2), 40.36(f)(2), 70.25(g)(2), and 72.30(d)(2) state that decommissioning records are to include as-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used or stored and locations of possible inaccessible contamination. Normal plant as-built drawings are acceptable. If the records reference other required drawings, each relevant document need not be indexed individually. If drawings are not available, appropriate records of available information concerning these areas and locations are to be substituted.

3.2.1 Drawings of restricted areas where radioactive materials are used or stored should include drawings showing the location of structures, systems, equipment, and components in restricted areas as defined in 10 CFR 20.3(a)(14).

3.2.2 Drawings of areas of possible inaccessible contamination should include buried pipes or other areas obstructed by equipment or structures or as indicated in Regulatory Position 3.1.1.

3.2.3 If other drawings are referenced, it is sufficient to reference the general category of drawings being referenced (for example, drawings of a particular laboratory location or facility structure or equipment) and the specific location where those drawings are kept (for example, the facility's specific file number).

3.2.4 If drawings are unavailable, appropriate records of available information may be substituted, including written descriptions of particular areas, recent sketches, or photographs.

3.2.5 Drawings should be maintained and should be updated as systems, components, and structures are modified or added. Old or superseded drawings should be retained if they contain information relevant to potential locations of contamination.

3.2.6 To ensure that previously used work sites are not forgotten if they are inactive when final decommissioning occurs, the records should include information on all locations where radioactive operations were ever performed during the life of the facility, including a list of what licensed materials were handled, a general description of the operations performed, and typical contamination and radiation levels during operations.

3.2.7 To provide a baseline history of background radiation levels prior to work with radioactive materials, the records should include surveys and isotopic analyses of building materials and soil samples made prior to initial use of new facilities or existing facilities not previously used for work with radioactive materials. This information can be used to verify the actual contribution of licensee operations to contamination and radiation levels at decommissioning.

#### 4. CURRENT LICENSEES

Current licensees should review their recordkeeping provisions to be sure they meet the requirements of 10 CFR 30.35(g), 40.36(f), 70.25(g), and 72.30(d). Records of spills or other unusual occurrences, if such information exists, and records of existing drawings should be reviewed. A location for the decommissioning records should be clearly identified and established by either incorporating these existing files in the decommissioning records or by referencing the existing files. If drawings are not available, alternative records should be created as in Regulatory Position 3.2.4. Recreation of records on spills and occurrences beyond what is known in existing documentation is not necessary.

#### D. IMPLEMENTATION

The purpose of this section is to provide information to licensees regarding the NRC staff's plans for using this regulatory guide.

This draft regulatory guide has been released to encourage public participation in its development. Except in those cases in which a licensee proposes an acceptable alternative method for complying with specified portions of the Commission's regulations, the guidance to be described in the active guide reflecting public comments will be used in the evaluation of a licensee's provisions for maintenance of records important to decommissioning for all licensees with licenses in effect on or after the implementation date to be specified in the final guide.

## DRAFT VALUE/IMPACT STATEMENT

### 1. PROPOSED ACTION

#### 1.1 Description

On June 27, 1988, the Commission amended Parts 30, 40, 70, and 72 and set forth criteria for decommissioning (53 FR 24018). On August 19, 1988, the Commission further amended its requirements in 10 CFR Part 72 (53 FR 31651, effective date September 19, 1988). Paragraphs 30.35(g), 40.36(f), 70.25(g), and 72.30(d) require licensees to keep records of information important to safe and effective decommissioning in an identified location until the license is terminated by the Commission. The new rule sections also indicate information that the Commission considers important to decommissioning. This proposed action is to issue a regulatory guide on recordkeeping for decommissioning. A draft regulatory guide in support of the amended rules on decommissioning would be issued for public comment.

#### 1.2 Need

In planning for the actual decommissioning of a nuclear facility, it is necessary to have as complete knowledge as possible of the radiological condition of the facility. This information will serve to facilitate decommissioning by minimizing occupational exposure and reducing the risk of any public exposure. The purpose of decommissioning records is to keep and maintain information concerning contamination remaining from spills or other occurrences and to maintain up-to-date drawings of restricted areas where radioactive materials are used or stored or of inaccessible areas so that this information can be used when planning for decommissioning. At the present time there is no published NRC guidance concerning methods for establishing and maintaining decommissioning records in a manner considered acceptable to the NRC staff. Specific information should be provided on details of recordkeeping for decommissioning so that licensees can develop and maintain records required by the

rule amendments with a minimum of time and effort. This guide would describe methods acceptable to NRC staff to implement the general requirements on recordkeeping.

### 1.3 Value/Impact

#### 1.3.1 NRC

Information in the decommissioning records would not be submitted to NRC, so no staff review is necessary; however, the licensees' records would be subject to routine inspections to verify that the required records are properly maintained. This regulatory guide would identify criteria for recordkeeping for decommissioning. Application and use of this guidance by NRC staff members who engage in inspections will aid their review of licensee recordkeeping provisions. The Regulatory Analysis for the decommissioning rule amendments (contained in 10 CFR 30.35, 40.36, 70.25, and 72.30) estimated the staff time involved in consideration of recordkeeping by licensees. This guide does not add to this review time but provides guidance for satisfying recordkeeping provisions required by the rule, and in so doing minimizes staff time to the extent practicable.

In addition, appropriate information in the records would provide the basis for more acceptable decommissioning plans being submitted to the NRC as required by 10 CFR 30.36, 40.42, 70.38, and 72.54, as appropriate, which could significantly reduce the time required for staff review of those decommissioning plans.

#### 1.3.2 Other Government Agencies

State or Federal agencies (for example, a State university or government laboratory) that are licensed by the NRC for a nuclear facility will be affected. The value/impact is expected to be similar to that for industry (see Section 1.3.3).

#### 1.3.3 Industry

Industry should benefit from this action because it provides guidance and criteria for meeting the decommissioning recordkeeping requirements. Publication of a draft guide would allow industry representatives to participate in the development of a final regulatory guide by submitting comments. The Regulatory Analysis for the rule amendments on decommissioning estimated the impact

on industry for the implementation of recordkeeping requirements. No additional impact is anticipated as a result of this proposed action since it merely provides guidance for recordkeeping required by the rule and, in so doing, minimizes impact on industry to the extent practical. The proposed action would describe the information that should be kept in decommissioning records, which would minimize costs to licensees.

#### 1.3.4 Public

This proposed action would provide guidance to licensees on information that should be kept in decommissioning records. Such records would be more reliable and complete, which would reduce the potential of leaving excessive residual radioactivity and would reduce occupational exposures. Reliable records also reduce the chances for inefficient decommissioning, thus minimizing the cost of decommissioning and increasing the assurance that funds will be available for decommissioning. Thus, this proposed action would have a beneficial effect on public health and safety. Issuance of a draft regulatory guide for public comment would also allow for broader input when developing the final guide.

## 2. TECHNICAL APPROACH

The guide does not set forth any technical positions, thus this section is not applicable.

## 3. PROCEDURAL APPROACH

### 3.1 Procedural Alternatives

NRC procedures that may be used to promulgate the information contained in the guide are:

- Regulation
- Policy statement
- NUREG-series report
- Regulatory guide
- Branch technical position

A policy statement or a regulation are not suitable for incorporating the degree of detail that would be presented in the guide. Branch technical positions (BTP) are sometimes prepared for specific guidance. However, no BTP is being developed on this subject. NUREG reports provide information, but they are not suitable for providing guidance. This proposed action is to provide licensees under Parts 30, 40, 70, and 72 with information related to keeping records important to safe and effective decommissioning. Such recordkeeping is required by the recently published rule amendments on decommissioning (June 27, 1988, 53 FR 24018). A regulatory guide is considered the best alternative for accomplishing this purpose.

#### 4. STATUTORY CONSIDERATIONS

##### 4.1 NRC Authority

Authority for the proposed action is derived from the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, as amended, and implemented through the Commission's regulations cited in the introduction to the guide.

##### 4.2 Need for NEPA Assessment

Issuance or amendment of guides for implementing regulations in Title 10, Chapter I, of the Code of Federal Regulations is a categorical exclusion under paragraph 51.22(c)(16) of 10 CFR Part 51. Thus no environmental impact statement or assessment is necessary.

#### 5. RELATIONSHIP TO OTHER EXISTING OR PROPOSED REGULATIONS OR POLICIES

The draft regulatory guide would be issued for public comment in support of the rule amendments on decommissioning (53 FR 24018, June 27, 1988, effective date of July 27, 1988).

#### 6. SUMMARY AND CONCLUSIONS

The proposed regulatory guide should be issued for public comment.

**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555**

**OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300**

**FIRST CLASS MAIL  
POSTAGE & FEES PAID  
USNRC  
PERMIT No. G-67**