

September 24, 1996

The Applied Radiant Energy Corporation
ATTN: Mr. Lawrence G. Barrett
President
Venture Drive\Forest Commercial Center
P. O. Box 289
Forest, Virginia 24551

Dear Mr. Barrett:

SUBJECT: REVIEW OF LETTER OF CREDIT/STANDBY TRUST AGREEMENT SUBMITTED BY
APPLIED RADIANT ENERGY CORPORATION

This refers to the Irrevocable Standby Letter of Credit No 292, issued by First Community Bank of Forest Virginia and dated March 12, 1996. This letter of credit and amended standby trust agreement was submitted as financial assurance, in the amount of \$75,000, to assure decommissioning costs for License No. 45-11496-01, issued under 10 CFR Part 30.1. Upon review of the submission (using 10 CFR 30.35 and Regulatory Guide 3.66), we recommend that you modify the submission in the following ways:

1. Revise Paragraph 1, Subparagraph 2, of the letter of credit to add the missing quotation mark (Regulatory Guide 3.66, page 4-33);

Paragraph 1, Subparagraph 2, of the recommended wording for a letter of credit in Regulatory Guide 3.66, page 4-33, requires NRC to present a signed statement when drawing on the letter of credit. Specifically, the recommended wording calls for presentation of the following:

your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued authority of the U.S. Nuclear Regulatory Commission."

Although Paragraph 1, Subparagraph 2 of the submitted letter of credit follows the above wording in all material respects, it does not include the closing quotation mark following the required signed statement.

2. Revise Paragraph 4 of the letter of credit to reference the standby trust fund of the licensee (Regulatory Guide 3.66, page 4-34);

Paragraph 4 of the submitted letter of credit contains the following language:

Whenever this letter of credit is drawn on under and in compliance with the terms of this letter of credit, we shall honor such draft upon its presentation to us within 30 days, and we shall deposit the amount of the draft directly into the standby trust fund of the U.S. Nuclear Regulatory Commission in accordance with your instructions. (emphasis added)

According to the recommended wording in Regulatory Guide 3.66, page 4-34, the letter of credit must require that the bank deposit the amount of the draft into the standby trust fund of the licensee, not NRC. The licensee has, in fact, established a standby trust fund for this purpose. To ensure that any funds drawn on the letter of credit are placed into the standby trust fund established by the licensee for that purpose, and to help ensure that there is no implication that the funds in the standby trust fund belong to NRC, please revise the letter of credit to specify that funds drawn from the letter of credit will be deposited into the standby trust fund of the licensee in accordance with NRC's instructions.

3. Revise Paragraph 5 of the letter of credit to add the missing quotation mark (Regulatory Guide 3.66, page 4-34);

Paragraph 5 of the recommended wording for a letter of credit in Regulatory Guide 3.66, page 4-34, is worded as follows:

Each draft must bear on its face the clause: "Drawn under Letter of Credit No. _____, dated _____, and the total of this draft and all other drafts _____ previously drawn under this letter of credit does not exceed [fill in amount]."

Although Paragraph 5 of the submitted letter of credit follows the above wording in all material respects, it does not include the closing quotation mark following the aggregate withdrawal limit and, as a result, it is not clear whether NRC's draft should or must include additional wording beyond that in Paragraph 5. If NRC does not prepare the draft correctly, the bank may not be obligated to pay the draft. Therefore, please revise Paragraph 5 of the letter of credit to add the missing quotation mark.

4. Revise the letter of credit to clarify the reference to governing credit standards (Regulatory Guide 3.66, page 4-34);

NRC's recommended wording for letters of credit, specified in Regulatory Guide 3.66, pages 4-33 and 4-34, concludes with the following paragraph:

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce," or "the Uniform Commercial Code"]. (emphasis added)

The submitted letter of credit includes this paragraph, but references both the Uniform Customs and Practice for Documentary Credits and the Uniform Commercial Code. The Uniform Customs and Practice for Documentary Credits and the Uniform Commercial Code each present a separate set of standards under which letters of credit may be interpreted. To help ensure a consistent interpretation of the

submitted letter of credit, and to avoid possible delays or ambiguities in defining the meaning of disputed clauses, please revise the letter of credit so that it specifies either the Uniform Customs and Practice for Documentary Credits or the Uniform Commercial Code, as recommended in Regulatory Guide 3.66.

5. **Correct or confirm the amendment's reference to the standby trust agreement being amended;**

The current submission includes a document (dated March 1, 1996) entitled "First Amendment to the Standby Trust Agreement." This document states that it amends the July 19, 1990, standby trust agreement between the licensee and Sovran Bank, N.A. For two reasons, ~~HOWEVER~~ it is not clear whether the July 19, 1990, agreement still ~~exists~~ or has been replaced:

- (1) The licensee subsequently entered into a July 23, 1990, standby trust agreement with Nations Bank of Virginia, the successor to Sovran Bank, N.A.
- (2) The July 23, 1990, agreement was revised effective December 1, 1992.

Please correct or confirm the amendment to clarify which standby trust agreement it is amending. If the amendment applies to the July 19, 1990, agreement (as currently stated in the amendment), the licensee should demonstrate that it has submitted Schedules A and B, a specimen certificate of events, a specimen certificate of resolution, and a letter of acknowledgement. Please also ensure that the specimen certificate of events references the new trustee (i.e., First Community Bank).

Alternatively, if the amendment applies to the December 1, 1992, standby trust agreement, you should revise the amendment to reference that agreement. In this case, you should also revise the specimen certificate of events and Schedule C previously submitted with that agreement to reference the new trustee (i.e., First Community Bank).

6. **Modify the amended introductory paragraph to the standby trust agreement (10 CFR 30.35(f)(2)(ii)); and**

The amendment revises the introductory paragraph to the standby trust agreement to read as follows:

TRUST AGREEMENT, the Agreement entered into as of March 1, 1996 by and between The Applied Radiant Energy Corporation, a Virginia Corporation, herein referred to as "Grantor", and First Community Bank of Forest, Virginia (and in the alternative, Main Street Bank Corporation), the successor Trustee, hereinafter, "Trustee". (emphasis added)

10 CFR 30.35(f)(2)(ii) states that acceptable trustees include "an appropriate State or Federal government agency or an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency." First Community Bank meets these criteria because it is examined by the Virginia Bureau of Financial Institutions and has trust powers. However, Main Street Bank Corporation, the holding company that owns First Community Bank, does not have trust powers (even though it owns banks that have trust powers). Therefore, Main Street Bank Corporation could not serve as trustee for the standby trust. Therefore, please delete the reference to Main Street Bank Corporation in the amended introductory paragraph to the standby trust agreement.

7. Execute the amendment to the standby trust agreement.

The submitted amendment to the standby trust agreement is not executed and, thus, is not yet effective. Regardless of which standby trust agreement is being amended (see Recommendation 5), please execute the amendment in accordance with the amendment provisions in the applicable agreement. For both the July 19, 1990, agreement and the December 1, 1992, agreement, this means the amendment must be signed by the licensee, NRC, and the trustee. Note that the current trustee of record (i.e., pending execution of the amendment) is Nations Bank of Virginia, and not First Community Bank (whose signature is currently anticipated by the amendment).

If have questions about this letter or your license, please call me at 404-331-5617.

Sincerely,

*Original signed by
E. G. Wright*

Earl G. Wright
Senior License Reviewer
Division Nuclear Materials Safety

Enclosure: Reg. Guide 3.66, June 1990

cc: Dr. James Myron, Radiation Safety Officer
Applied Radiant Energy Corporation

Distribution: (See Page 5)


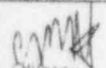
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U.S. NUCLEAR REGULATORY COMMISSION

June 1990

REGULATORY GUIDE

OFFICE OF NUCLEAR REGULATORY RESEARCH

REGULATORY GUIDE 3.66 (Task DG-3002)

STANDARD FORMAT AND CONTENT OF FINANCIAL ASSURANCE MECHANISMS REQUIRED FOR DECOMMISSIONING UNDER 10 CFR PARTS 30, 40, 70, AND 72

USNRC REGULATORY GUIDES

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VALUE/IMPACT STATEMENT

A draft value/impact statement was published with the draft of this regulatory guide, DG-3002, when it was published for public comment in January 1990. No changes were necessary, so a separate value/impact statement for the final guide has not been prepared. A copy of the draft value/impact statement is available for inspection and copying for a fee at the Commission's Public Document Room at 2120 L Street NW., Washington, DC, under Task DG-3002.

1. INTRODUCTION

The Nuclear Regulatory Commission (NRC) has established technical and financial regulations for decommissioning licensed nuclear facilities (53 FR 24018, June 27, 1988). The regulations address decommissioning planning needs, timing, funding methods, and environmental review requirements for public and private facilities holding licenses under 10 CFR Parts 30, 40, 50, 70, and 72, with the exception of uranium mills. The intent of the regulations is to ensure that the decommissioning of all licensed facilities will be accomplished in a safe and timely manner and that licensees will provide adequate funds to cover all costs associated with decommissioning.

The purpose of this regulatory guide, "Standard Format and Content of Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72," is to provide guidance acceptable to the NRC staff on the information to be provided for establishing financial assurance for decommissioning and to establish a standard format for presenting the information. Use of the standard format will (1) help ensure that the financial instruments contain the information required by 10 CFR Parts 30, 40, 70, and 72, (2) aid the applicant and NRC staff in ensuring that the information is complete, and (3) help persons reading the financial instruments to locate information.

This guide addresses financial assurance for decommissioning of facilities under materials licenses granted under Parts 30, 40, 70, and 72. These parts include licensees in the following categories:

- Part 30 - Byproduct Material,
- Part 40 - Source Material,
- Part 70 - Special Nuclear Material, and
- Part 72 - Independent Spent Fuel Storage Installations

Other guidance will address the decommissioning requirements for licensees regulated under 10 CFR Part 50, production and utilization facilities, and describe specific procedures required during decommissioning.

The financial assurance requirements of the decommissioning rule became effective on July 27, 1988, 30 days after the regulation was promulgated. Holders of licenses issued before July 27, 1990, must provide financial assurance on or before July 27, 1990 [10 CFR 30.35(c)(2), 40.36(c)(2), and 70.25(c)(2)]. Applicants for licenses on or after July 28, 1988, generally must provide financial assurance when their license is issued. Independent spent fuel storage installations (ISFSIs) are required by current regulations (10 CFR 72.22) to have made financial arrangements for decommissioning.

NRC licensees initiate decommissioning activities when they decide to terminate licensed activity at a facility. The rule defines "decommissioning" as "remov[ing] (as a facility)¹ safely from service and reduc[ing] residual radioactivity to a level that permits release of the property for unrestricted use and termination of license" (10 CFR 30.4(aa)).

¹"Facility" is derived from the definition for decommissioning provided in the final rule and refers to the property and structures associated with materials licenses issued under 10 CFR Parts 30, 40, 70, and ISFSI licenses issued under Part 72.

NRC has designed its decommissioning financial assurance requirements to provide reasonable assurance that the technical and environmental components of decommissioning are carried out and unrestricted use of a facility is possible at the conclusion of such activities. Generally, these requirements specify that a facility licensee or applicant either must set aside money for decommissioning activities or must provide a guarantee through a third party that funds will be available. This regulatory guide is organized in the following manner:

- Section 1 describes the general financial assurance requirements imposed by the rule and clarifies several issues related to compliance with the rule;
- Section 2 describes the specific financial assurance requirements that public and private licensees must meet under Parts 30, 40, 70, and 72, including the amount of financial assurance that is required and the timing of submitting financial assurance instruments;
- Section 3 describes the instruments that are available to licensees to provide financial assurance; and
- Section 4 provides proposed text of the available financial assurance instruments.

Several exhibits and appendices are included in the guide to assist licensees in complying with the financial assurance requirements associated with decommissioning. These exhibits and appendices include the following:

- Exhibits 2-1 through 2-3 summarize the financial assurance requirements for facilities licensed under 10 CFR Parts 30, 40, 70, and 72. Specifically, the exhibits distinguish between the financial assurance requirements for holders of or applicants for licenses; the type of material possessed and used by the licensee; and the amount of material possessed and used by the licensee. The exhibits also explain whether the licensee must submit a decommissioning funding plan (DFP) or certification of financial assurance, when financial assurance must be submitted, and the financial instruments that are available to meet the financial assurance requirements.
- Exhibits 3-1 through 3-9 are checklists of the criteria that should be considered when submitting and reviewing each financial assurance mechanism.
- Appendices A-E provide checklists of the documents that must be submitted to comply with the financial assurance requirements depending on the financial instrument used. Appendix A is a master checklist to be used by all applicants and licensees for materials licenses under 10 CFR Parts 30, 40, 70, and 72. Appendices B-E are checklists of documents to be submitted when a particular financial instrument is used.
- Appendix F provides a worksheet on the procedures that licensees should use to develop site-specific decommissioning cost estimates for submission in a decommissioning funding plan.

- Appendix G provides a radionuclide conversion table for determining the amount of financial assurance certification that must be provided.

Any information collection activities mentioned in this regulatory guide are contained as requirements in 10 CFR Parts 30, 40, 70, or 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.

1.1 COMPLYING WITH FINANCIAL ASSURANCE REQUIREMENTS

The financial assurance requirements outlined in the final decommissioning rule vary depending on several factors, including:

- The type of licensee (i.e., public vs. private);
- The type of NRC license that a licensee holds (i.e., 10 CFR Part 30, 40, 70, or 72);
- When the NRC license was issued;
- The amount of material a licensee is authorized to possess and use; and
- The financial assurance instrument that a licensee chooses to comply with the regulations.

Based on these factors, NRC licensees under Parts 30, 40, 70, or 72 may be required to:

- Submit financial assurance in amounts ranging from \$75,000 to \$750,000, or in amounts based on site-specific decommissioning cost estimates (Part 72 licensees must provide cost estimates);
- Submit a decommissioning funding plan (DFP) or certification of financial assurance (Part 72 licensees must submit DFPs);
- Demonstrate financial assurance immediately (i.e., applicants for an NRC license), or by July 27, 1990 (i.e., holders of NRC licenses issued before July 27, 1990).

The remainder of this section describes basic concepts about decommissioning financial assurance, including the difference between a DFP and certification of financial assurance and when and how financial assurance must be submitted to the NRC. Section 1.2 describes the cost estimating procedures that must be used when filing a DFP; Section 1.3 describes decommissioning financial assurance requirements for facilities using more than one type of nuclear material; and Section 1.4 describes recordkeeping requirements for financial assurance.

1.1.1 Decommissioning Funding Plan and Certification of Financial Assurance

The final decommissioning rule specifies that certain NRC licensees are required to demonstrate financial assurance for decommissioning either through a decommissioning funding plan (DFP) or through certification of financial

assurance, depending on the 10 CFR part under which the license is issued and the amount of material that a license authorizes a licensee to possess and use. This section explains when a DFP is required and when certification of financial assurance is permitted.

1.1.1.1 Decommissioning Funding Plan

Paragraphs 30.35(e), 40.36(d), 70.25(e), and 72.30(b) specify the contents of what must be submitted to NRC in a decommissioning funding plan for licensees or applicants under Parts 30, 40, 70, and 72 respectively. In each case, the regulations specify that a DFP must contain the following three components:

- A site-specific cost estimate for decommissioning (see Section 1.2 of this guidance for information about developing the cost estimate);
- A description of the method(s) of assuring funds for decommissioning (i.e., financial assurance instrument(s)); and
- A description of the methods that will be used to adjust the site-specific cost estimate periodically over the life of the facility (also discussed in Section 1.2 of this guidance).

The description of the methods of assuring funds for decommissioning should include the text of the financial assurance instrument(s) that a licensee has chosen to comply with the financial assurance requirements. Proposed wording for the text of each instrument is included in Section 4 of this guide. The licensee should provide an executed copy of the financial instrument at the time of renewal application submission which states that the instrument will be effective at the time the licensee takes possession of the licensed material.

The amount of financial assurance that a licensee must provide when submitting a DFP must be equal at least to the amount of the site-specific cost estimate developed as part of the DFP. Subsequently, the amount of financial assurance required of a licensee must be adjusted at the same time to match any required, periodic adjustments in the site-specific cost estimate (as required in the DFP).

1.1.1.2 Certification of Financial Assurance

Sections 30.35, 40.36, and 70.25 provide that certain NRC licensees may submit certification of financial assurance, either instead of a DFP (e.g., for licensees who possess smaller amounts of nuclear material) or until a DFP is required (e.g., for licensees who hold an NRC license issued before July 27, 1990, and who do not have to submit a DFP until the time of their next license renewal). Part 72 does not authorize certification for ISFSIs. A certification of financial assurance consists of the following two parts:

- A statement that the applicant is providing financial assurance in the amount prescribed by the regulation (see Exhibit 1-1); and
- A copy of the financial assurance instrument(s) obtained by the applicant.

Exhibit 1-1

RECOMMENDED WORDING FOR CERTIFICATION OF FINANCIAL ASSURANCE

CERTIFICATION OF FINANCIAL ASSURANCE

Principal: [Legal names and business address of licensee or applicant]

NRC License Number, name and address of the facility

Issued to: U.S. Nuclear Regulatory Commission

This is to certify that [name of applicant] is licensed to possess [type of material] in the following amounts [amounts], and that financial assurance in the amount prescribed by 10 CFR [Part 30, 40, or 70], [amount prescribed] has been obtained for the purpose of decommissioning.

Signature(s) and title(s) of official(s) of institution.

Corporate seal.

Date.

A licensee or applicant providing a certification of financial assurance should provide an executed copy of the financial instrument which states that the instrument will be effective at the time the licensee takes possession of the licensed material [10 CFR 30.35(b)(2), 40.36(b)(2), and 70.25(b)(2)].

Certification of financial assurance does not require a site-specific cost estimate. Instead, based on the 10 CFR part under which the license is issued and the amount of nuclear material that a facility is authorized to possess and use, the regulation prescribes an amount of financial assurance that an applicant or licensee must provide.

Certification amounts will not change unless:

- the NRC adjusts the amounts of certification (which will be done periodically);
- the licensee submits a DFP; or
- the licensee prepares a decommissioning plan.

The prescribed amounts of financial assurance associated with certification must be adjusted when a facility notifies NRC that it will terminate activities under the license and decommission the facility. At this time, a licensee must submit a decommissioning plan (not the same as a DFP) that contains "an updated detailed cost estimate for decommissioning, comparison of that estimate with present funds set aside for decommissioning, and plan for assuring the availability of adequate funds for completion of decommissioning" (10 CFR 30.36(c)(2)(iii)(D), 40.42(c)(2)(iii)(D), and 70.38(c)(2)(iii)(D)). The methods used to adjust the amount of certification are discussed in Section 1.2.

1.1.2 Timing for Submitting Financial Assurance

The decommissioning regulations establish different time schedules for submitting financial assurance, depending on whether a licensee was a holder of an NRC license issued before July 27, 1990, a holder of an NRC license issued on or after July 27, 1990, or an applicant for a new NRC license on or after July 27, 1988 (10 CFR 30.35(a)-(c), 40.36(a)-(c), and 70.25(a)-(c)).

Holders of NRC licenses issued before July 27, 1990, have until July 27, 1990, to submit certification of financial assurance in amounts prescribed by the rule or a DFP. Those holders of licenses that must submit a DFP (e.g., holders of Part 40 licenses authorized to possess and use more than 100 mCi of readily dispersible source material) are not required to submit the DFP with a site-specific cost estimate until the time of the next license renewal if certification is submitted by July 27, 1990.

Applicants for NRC licenses on or after July 27, 1988, are required to submit certification of financial assurance or a DFP when they are applying for the license. At all times, licensees must have an amount of financial assurance equal to or greater than the site-specific cost estimate in the DFP, if used, or the appropriate amount of certification. Whenever a licensee intends to change the instrument(s) used to provide financial assurance, the licensee must notify

NRC at least 90 days in advance and submit the details (e.g., text of the instrument) of the new instrument before the instrument in place expires. Additional notification and demonstration requirements for each instrument are discussed in Section 3.

1.1.3 Financial Assurance Mechanisms

All NRC applicants or licensees may use one or more of three financial mechanisms to demonstrate financial assurance regardless of whether a DFP or certification of financial assurance is required or when financial assurance must be submitted (e.g., immediately, upon license renewal, or by July 27, 1990). Federal, State, or local government applicants or licensees may use a fourth option to provide financial assurance, a statement of intent. The mechanisms, specified in 10 CFR 30.35(f), 40.36(e), 70.25(f), and 72.30(c), are the following:

- Prepayment Methods - Trust fund, escrow account, certificate of deposit, government fund and/or deposit of government securities;
- Surety/Insurance/Guarantee - Surety bond, letter of credit, line of credit, or a parent company guarantee based on a financial test;
- External Sinking Fund - A set-aside of money coupled with a surety method or insurance; and/or
- Statement of Intent - Available for Federal, State, and local government licensees, a statement of intent is a promise by a government to provide adequate funding for decommissioning activities when required.

Each of these mechanisms, and restrictions on their use (e.g., the parent company guarantee may not be used in combination with any other instrument), is described in more detail in Section 3 of this guide. Licensees also should refer to Appendices A-E of the guide for checklists of the documents that must be submitted to demonstrate financial assurance.

1.1.4 Licensee Categories

Section 2 of this guide discusses in detail the financial assurance requirements for licensees under 10 CFR Parts 30, 40, 70, and 72. In general, however, requirements for facilities possessing similar amounts of nuclear material under each of these parts are the same, and licensees can be divided into three categories which, although not specified in the regulation, are useful for discussing the effect that the regulation will have on licensees:

- Category A Licensees - Category A licensees include holders of specific NRC licenses issued before July 27, 1990, and applicants for specific licenses on or after July 27, 1988, that are allowed to possess nuclear material in the following amounts:
 - Unsealed byproduct material greater than 120 day half-life and in quantities greater than 10^5 times the applicable amounts specified in 10 CFR Part 20, Appendix C (source or byproduct material from thorium or uranium mills not included);

- Source material in readily dispersible form in amounts greater than 100 mCi (source or byproduct material from thorium or uranium mills not included); or
- Unsealed special nuclear material in amounts greater than 10^5 times the applicable amounts specified in 10 CFR Part 20, Appendix C.

Holders of Category A licenses issued before July 27, 1990, must submit certification of financial assurance in the amount of \$750,000 (not required if DFP submitted on or before July 27, 1990) on or before July 27, 1990, and a DFP at the time of their next license renewal occurring after July 27, 1990. New applicants for Category A licenses must submit a DFP at the time of their license application.

- Category B Licensees - Category B licensees are holders of specific licenses issued before July 27, 1990, and applicants for specific licenses on or after July 27, 1988, that are allowed to possess nuclear material in amounts less than or equal to the thresholds specified for Category A licensees and greater than the following amounts:

- Unsealed byproduct material greater than 120 day half-life and in quantities greater than 10^3 times the applicable amounts specified in 10 CFR Part 20, Appendix C (source or byproduct material from thorium or uranium mills not included);
- Byproduct materials in sealed sources or plated foils less than 120 day half-life and less than 10^{10} times the applicable amounts in Appendix C;
- Source material in readily dispersible form greater than 10 mCi (source or byproduct material from thorium or uranium mills not included); or
- Unsealed special nuclear material greater than 10^8 times the applicable amounts specified in 10 CFR Part 20, Appendix C.

Category B licensees may submit either certification of financial responsibility in amounts prescribed by the regulation or a DFP [10 CFR 30.35(b), 40.36(b), and 70.25(b)]. Holders of Category B licenses issued before July 27, 1990, must submit either certification of financial assurance or a DFP on or before July 27, 1990 [10 CFR 30.35(c)(3), 40.36(c)(3), 70.25(c)(3)]. New applicants for Category B licenses must submit either a certification or a DFP at the time of their license application.

- Category C Licensees - Applicants or licensees in Category C (nuclear material in amounts less than threshold limits specified for Category A and B licensees) do not have to submit financial assurance because they are not authorized to possess and use nuclear material in amounts above the threshold levels specified in the regulation. Licenses must include a possession limit that ensures threshold limits will not be exceeded.

Appendix G provides a conversion table showing the isotopes and threshold limits associated with different levels of financial assurance.

1.2 COST ESTIMATING FOR DECOMMISSIONING FUNDING PLAN

The final decommissioning rule of July 27, 1988, establishes very general requirements with respect to cost estimating procedures for financial assurance and does not explicitly specify broad categories of the cost components that should be included (10 CFR 30.35(e), 40.36(d), 70.25(e), and 72.22(e)(3)). Preparation of cost estimates is required only when applicants are submitting a decommissioning funding plan. In developing this guide, other NRC documents listed below were consulted.

- Regulatory Guide 3.65, "Standard Format and Content of Decommissioning Plans for Licensees Under 10 CFR Parts 30, 40, and 70";
- Technology, Safety, and Costs of Decommissioning Reference Non-Fuel-Cycle Nuclear Facilities (NUREG/CR-1754, 1981);
- Technology and Cost of Termination Surveys Associated with Decommissioning of Nuclear Facilities (NUREG/CR-2241, 1982);
- Final Generic Environmental Impact Statement on Uranium Milling Project M-25 (NUREG-0706, 1980);
- Branch Technical Position: Disposal or On-site Storage of Residual Thorium or Uranium (NRC, 1981, 46 FR 52061).

These documents elaborate on methods of implementing financial responsibility requirements, including preparing cost estimates. Major decommissioning activities identified, for example, include:

- planning and preparation of the facility and site for decommissioning;
- decontamination and dismantling of radioactive facility components;
- packaging, shipment, and disposal of radioactive wastes; and
- a final radiation survey.

Decommissioning activities do not include removal/disposal of non-radioactive structures and materials beyond that necessary to terminate the NRC license.

A cost estimating table that organizes and provides a format for determining decommissioning cost components and activities is illustrated in Appendix F. This table can be easily adapted by licensees. It provides an extensive checklist of decommissioning activities that must be included in the decommissioning cost estimate. Costs that should be included in the estimate are:

- labor;
- equipment and supplies;

- radioactive waste disposal;
- contractor overhead and profit;
- miscellaneous expenses (e.g., license fees, insurance, taxes); and
- contingencies.

Major considerations involved in preparing site-specific estimates include the need to base estimates on reasonable costs expected under routine facility conditions, the need for periodic updating of estimates, and the issue of salvage value.

1.2.1 Inflation

The decommissioning rule specifies that licensees who submit decommissioning funding plans are required to adjust cost estimates and associated funding levels "periodically" over the life of the facility. Factors creating the need for cost estimate adjustments include inflation, changes in facility conditions, and changes in expected decommissioning procedures. Adjustments to cost estimates should be made for inflation and site-specific factors at the time of license renewal or when the amounts/types of material at the facility change. Inflation adjustments should be made by calculating costs in current dollars. Current dollar estimates are based on prices applicable to goods and services in the year that they are purchased (e.g., 1988 current dollar estimates would be based on 1988 prices). Current dollar adjustments involve updating cost estimates with current prices for goods and services.

1.2.2 Salvage Value

The rule does not specify whether licensees may deduct the potential salvage value of recovered materials or decontaminated equipment (or high value materials found on the equipment) from their decommissioning cost estimate. For those who do account for salvage value, a significant gap in coverage could occur if the expected credits are not fully realized. Therefore, in order to ensure the adequacy of funds for decommissioning, cost estimates should not incorporate any salvage value that may be realized with the sale of potential assets.

1.3 LICENSEES USING MORE THAN ONE TYPE OF NUCLEAR MATERIAL

Some licensees are authorized to use more than one type of nuclear material in the same facility, and in many cases, use these materials in the same operations. It would be difficult to require separate decommissioning plans and financial responsibility requirements in circumstances where there is an interdependence of facilities, operations, or projected decommissioning activities.

Under these circumstances, the licensee must provide financial assurance in an amount consistent with the 10 CFR part under which the nuclear materials are licensed (where combinations of isotopes are involved, the ratio and quantity of isotopes is used to determine the certification amount, see Exhibits 2-1, 2-2, and 2-3).

The financial assurance requirements of multiple 10 CFR parts should be combined to determine the total financial assurance required. For example, if a licensee holds one license for byproduct material (Part 30) and one license

for source material (Part 40) and each license meets the requirement for \$750,000 financial assurance, the licensee would be required to submit \$1,500,000 total financial assurance. In addition, if a Part 30 license authorizes possession of enough sealed and unsealed byproduct material to require financial assurance for both forms of material, the required dollar amounts would also be combined. However, the licensee would have the option of submitting a consolidated decommissioning funding plan with a site-specific cost estimate demonstrating an actual cost lower than the amounts prescribed in the regulations.

NRC also will permit a licensee to file a consolidated decommissioning funding plan if that licensee operates multiple independent facilities and/or sites under a single materials license. A consolidated plan, however, would have to delineate procedures and cost estimates for each facility and/or site.

1.4 RECORDKEEPING

The recordkeeping requirements for licensees are contained in 10 CFR 30.35(g), 40.36(f), 70.25(g), and 72.30(d). At a minimum, licensees must keep records of:

- Spills or other unusual occurrences where contamination remains after any cleanup procedure or when contaminants may have spread to inaccessible areas. These records must include information on nuclides, quantities, forms, and concentrations;
- As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used/stored;
- Records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding methods used for assuring funds; and
- A copy of the financial assurance mechanism and, if applicable, the supporting standby trust fund arrangement or other supporting documentation, such as letters from the firm's chief financial officer and/or a certified public accountant.

Timely notification should be given to NRC in the following situations:

- The occurrence of any changes, revisions, and adjustments to the underlying cost estimates and to the financial assurance mechanisms, including a change from one mechanism to another.
- Commencement of bankruptcy action involving the licensee
 - Written notification of commencement of bankruptcy proceedings, as required by 10 CFR 30.34(h), 40.41(f), 70.32(a)(9), and 72.44(b)(6).
- Use of a state-required mechanism
 - Evidence of establishment of mechanism

- Written request for approval of use of this mechanism

Reports must also be submitted certifying completion of the activities for which financial assurance is provided before the financial assurance mechanism may be cancelled.

2. FINANCIAL ASSURANCE REQUIREMENTS FOR DECOMMISSIONING

This section describes the specific financial assurance requirements with which NRC licensees regulated under 10 CFR Parts 30, 40, 70, and 72 must comply. Specifically, this section describes the applicability of decommissioning financial assurance requirements, the timing for the submission of information evidencing compliance with the financial assurance requirements, and the mechanisms allowed.

2.1 FINANCIAL ASSURANCE FOR LICENSEES UNDER 10 CFR PART 30

The financial assurance requirements for decommissioning for holders of or applicants for NRC licenses under 10 CFR Part 30 vary based on the amount and type of materials that a licensee is authorized to possess. Exhibit 2-1 summarizes the financial assurance requirements for licensees under this part.

The financial assurance requirements established under Part 30, including whether an applicant or holder of a license must submit a decommissioning funding plan or has the option to submit certification of financial assurance, generally are based on whether an applicant possesses unsealed or sealed byproduct material.

2.1.1 Unsealed Byproduct Material

Holders of specific NRC licenses issued under 10 CFR Part 30 on or after July 27, 1990, and applicants for specific licenses under this part who are allowed to possess and use unsealed byproduct material must submit a decommissioning funding plan as specified in 10 CFR 30.35(a) when:

- (1) The half-life of the material is greater than 120 days and is held in quantities greater than 10^5 times the applicable amounts listed in Appendix C of 10 CFR Part 20; or
- (2) A combination of isotopes is involved if R divided by 10^5 is greater than 1 (unity rule), where R is the sum of the ratios of the quantity of each isotope to the applicable value in Appendix C.

While not stated in the rule, it should be noted that sealed source licensees authorized to receive and possess leaky or damaged sources should be subject to unsealed material criteria.

Holders of a Part 30 NRC license issued before July 27, 1990 who are allowed to possess and use unsealed byproduct material in amounts specified in paragraph (1) or (2) above have the option to submit either a decommissioning funding plan or certification of financial assurance in the amount of \$750,000, as specified in 10 CFR 30.35(c)(2). Such licensees must demonstrate financial assurance on or before July 27, 1990. If a licensee chooses to submit a certification of financial assurance on or before July 27, 1990, the licensee must submit a decommissioning funding plan in any application for a license renewal.

2.1.2 Byproduct Material

Holders of licenses issued under 10 CFR Part 30 who possess and use unsealed or sealed byproduct material in specified quantities, or applicants for such a license, must submit either a decommissioning funding plan or a certification of financial assurance, as specified in 10 CFR 30.35(b) and 30.35(c)(1) or (c)(3).

Exhibit 2-1

DECOMMISSIONING FINANCIAL RESPONSIBILITY REQUIREMENTS
Nuclear Regulatory Commission (NRC) Licensees Under 10 CFR Part 30

Party Affected (Citation)	Type of Material	Quantity of Material	Decommissioning Funding Plan	Amount of Certification	Timing	Methods Available
Applicant* for specific license (\$30.35(a))	Unsealed Byproduct Material	Half-life >120 days and in quantities >10 ⁵ times the applicable amounts in 10 CFR Part 20, Appendix C; or for a combination of isotopes if $R^{**}/10^5 > 1$	Required of all licensees	Not required	When applying for license	For all licensees, choice of the following options: 1) Prepayment; 2) Surety/Insurance/Guarantee; 3) External Sinking Fund and Surety/Insurance Method; or 4) Statement of Intent (public licensees only)
Applicant* for specific license (\$30.35-(b)(1)(2))	Unsealed Byproduct Material	Half-life >120 days and in quantities >10 ⁴ times and < 10 ⁵ times amounts in Appendix C; or for a combination of isotopes if $R^{**}/10^4 > 1$ and $R^{**}/10^5$ is ≤ 1	Required for all licensees if certification not submitted	\$750,000 required if DFP not submitted	When applying for license	Same as above
Applicant* for specific license (\$30.35-(b)(1)(2))	Unsealed Byproduct Material	Half-life >120 days and in quantities >10 ³ times but < 10 ⁴ times the applicable amounts in Appendix C; or for a combination of isotopes if $R^{**}/10^3 > 1$ and $R^{**}/10^4$ is ≤ 1 .	Required for all licensees if certification not submitted	\$150,000 required if DFP not submitted	When applying for license	Same as above
	Byproduct Material in Sealed Sources or Plated Foils	Half-life >120 days and in quantities >10 ¹⁰ times the applicable amounts in Appendix C; or for a combination of isotopes if $R^{**}/10^{10} > 1$	Required for all licensees if certification not submitted	\$75,000 required if DFP not submitted	When applying for license	Same as above
Holder of specific license issued on or after July 27, 1990 (\$30.35-(c)(1))	Unsealed Byproduct Material	Half-life >120 days and in quantities >10 ⁵ times the applicable amounts in Appendix C; or for a combination of isotopes if $R^{**}/10^5 > 1$	Required of all licensees	Not required	When applying for license	Same as above

* Appl' refers only to new applicants and not to existing license holders applying for a renewal license.
 **R is sum of the ratios of the quantity of each isotope to the app' 'e value in Appendix C.

Exhibit 2-1 (continued)

DECOMMISSIONING FINANCIAL RESPONSIBILITY REQUIREMENTS
Nuclear Regulatory Commission (NRC) Licensees Under 10 CFR Part 30

Party Affected (Citation)	Type of Material	Quantity of Material	Decommissioning Funding Plan	Amount of Certification	Timing	Methods Available
Holder of specific license issued on or after July 27, 1990 (§30.35-(c)(1))	Unsealed Byproduct Material	Half-life >120 days and in quantities >10 ⁴ times and < 10 ⁵ times applicable amounts in Appendix C; or for a combination of isotopes if $R^{**}/10^4 > 1$ and $R^{**}/10^5$ is ≤ 1	Required for all licensees if certification not submitted	\$750,000 if DFP not submitted	When applying for license	For all licensees, choice of the following options: 1) Prepayment; 2) Surety/Insurance/Guarantee; 3) External Sinking Fund and Surety/Insurance Method; or 4) Statement of Intent (public licensees only)
Holder of specific license issued on or after July 27, 1990 (§30.35-(c)(1))	Unsealed Byproduct Material	Half-life >120 days and in quantities >10 ³ times but < 10 ⁴ times the applicable amounts in Appendix C; or for a combination of isotopes if $R^{**}/10^3 > 1$ and $R^{**}/10^4$ is ≤ 1 .	Required for all licensees if certification not submitted	\$150,000 if DFP not submitted	When applying for license	Same as above
	Byproduct Material in Sealed Sources or Plated Foils	Half-life >120 days and in quantities >10 ¹⁰ times the applicable amounts in Appendix C; or for a combination of isotopes if $R^{**}/10^{10} > 1$	Required for all licensees if certification not submitted	\$75,000 if DFP not submitted	When applying for license	Same as above
Holder of specific license issued before July 27, 1990 (§30.35-(c)(2))	Unsealed Byproduct Material	Half-life >120 days and in quantities >10 ⁵ times the applicable amounts in Appendix C; or for a combination of isotopes if $R^{**}/10^5 > 1$	Required for all licensees if certification not submitted	\$750,000 if DFP not submitted by July 27, 1990	Certification required on or before July 27, 1990 (only if DFP not submitted on or before July 27, 1990); DFP required when submitting next license renewal after July 27, 1990.	Same as above
Holder of specific license issued before July 27, 1990 (§30.35-(c)(3))	Unsealed Byproduct Material	Half-life >120 days and in quantities >10 ⁴ times and < 10 ⁵ times applicable amounts in Appendix C; or for a combination of isotopes if $R^{**}/10^4 > 1$ and $R^{**}/10^5$ is ≤ 1	Required for all licensees if certification not submitted	\$750,000 if DFP not submitted	On or before July 27, 1990	Same as above

**R is the sum of the ratios of the quantity of each isotope to the applicable value in Appendix C.

Exhibit 2-1 (continued)

DECOMMISSIONING FINANCIAL RESPONSIBILITY REQUIREMENTS
Nuclear Regulatory Commission (NRC) Licensees Under 10 CFR Part 30

Party Affected (Citation)	Type of Material	Quantity of Material	Decommissioning Funding Plan	Amount of Certification	Timing	Methods Available
Holder of specific license issued before July 27, 1990 (§30.35-(c)(3))	Unsealed Byproduct Material	Half-life >120 days and in quantities >10 ³ times but < 10 ⁴ times the applicable amounts in Appendix C; or for a combination of isotopes if $R^{AA}/10^3 > 1$ and $R^{AA}/10^4$ is ≤ 1 .	Required for all licensees if certification not submitted	\$150,000 if DFP not submitted	On or before July 27, 1990	For all licensees, choice of the following options: 1) Prepayment; 2) Surety/Insurance/Guarantee; 3) External Sinking Fund and Surety/Insurance Method; or 4) Statement of Intent (public licensees only)
	Byproduct Material in Sealed Sources or Plated Foils	Half-life >120 days and in quantities >10 ¹⁰ times the applicable amounts in Appendix C; or for a combination of isotopes if $R^{AA}/10^{10} > 1$	Required for all licensees if certification not submitted	\$75,000 if DFP not submitted	On or before July 27, 1990	Same as above
	Byproduct Material	< threshold limits specified	Not required	Not required	Not applicable	Not applicable
2-4 Holder or applicant* for specific license						

* App : refers only to new applicants and not to existing license holders
 **R 1: sum of the ratios of the quantity of each isotope to the applicable value in Appendix C.

*s applying for a renewal license.
 le value in Appendix C.

The licensee must submit certification of financial assurance in the following amounts if a DFP is not submitted:

- \$750,000 If the unsealed byproduct material is held in quantities greater than 10^4 and less than or equal to 10^5 times the applicable quantities in Appendix C of 10 CFR Part 20, or if the material is a combination of isotopes, if R (as defined in 10 CFR 30.35(a)) divided by 10^4 is greater than 1 but R divided by 10^5 is less than or equal to 1;
- \$150,000 If the unsealed byproduct material is held in quantities greater than 10^3 and less than or equal to 10^4 times the applicable quantities in Appendix C of 10 CFR Part 20, or if the material is a combination of isotopes, if R (as defined in 10 CFR 30.35(a)) divided by 10^3 is greater than 1 but R divided by 10^4 is less than or equal to 1;
- \$75,000 If the byproduct material is held in sealed sources or plated foils in quantities greater than 10^{10} times the applicable quantities in Appendix C of 10 CFR Part 20, or if the material is a combination of isotopes, if R (as defined in 10 CFR 30.35(a)), divided by 10^{10} is greater than 1.

When submitting certification of financial assurance, the applicant may state that the financial instrument will be obtained after the application for the license has been approved but before the material covered under the license is received. Although the instrument does not have to be in place when the license application is made or in the period after the license is granted, it must be in force before actual possession and use of the byproduct material. The possession of byproduct material allowed by the license is contingent upon submittal of appropriate financial assurance.

Licensees or applicants under 10 CFR Part 30 may submit financial assurance using one or more of the following mechanisms:

- Prepayment
- Surety/Other Guarantee/Insurance
- External Sinking Fund combined with Surety or Insurance
- Statement of Intent (Federal, State, or local government licensees only)

2.2 FINANCIAL ASSURANCE FOR LICENSEES UNDER 10 CFR PART 40

The financial assurance requirements for decommissioning for holders of or applicants for NRC licenses under 10 CFR Part 40 also vary based on the amount and type of source material that a licensee is allowed to possess. Exhibit 2-2 summarizes the financial assurance requirements promulgated in the June 27, 1988, rule for licensees under 10 CFR Part 40.

As shown in Exhibit 2-2, there are four separate licensee circumstances specified in the decommissioning financial assurance requirements under 10 CFR Part 40. These circumstances are the following:

- Holders of NRC licenses under 10 CFR Part 40 issued on or after July 27, 1990, and applicants for licenses for source material under this

Exhibit 2-2

DECOMMISSIONING FINANCIAL RESPONSIBILITY REQUIREMENTS
Nuclear Regulatory Commission (NRC) Licensees Under 10 CFR Part 40

Party Affected (Citation)	Type of Material	Quantity of Material	Decommissioning Funding Plan	Amount of Certification	Timing	Methods Available
Applicant* for specific license (§40.36(a))	Source Material in readily dispersible form	> 100 mCi	Required of all licensees	Not required	When applying for license	For all licensees, choice of the following options: 1) Prepayment; 2) Surety/Insurance/Guarantee; 3) External Sinking Fund and Surety/Insurance Method; or 4) Statement of Intent (public licensees only)
Applicant* for specific license (§40.36-(b)(1)(2))		> 10 mCi, but ≤ 100 mCi	Required for all licensees if certification not submitted	\$150,000 if DFP not submitted	When applying for license	Same as above
Holder of specific license issued on or after July 27, 1990 (§40.36-(c)(1))		> 100 mCi	Required of all licensees	Not required	When applying for license	Same as above
		> 10 mCi, but ≤ 100 mCi	Required for all licensees if certification not submitted	\$150,000 if DFP not submitted	When applying for license	Same as above
Holder of specific license issued before July 27, 1990 (§40.36-(c)(2))	Source Material in readily dispersible form	> 100 mCi	Required for all licensees if certification not submitted	\$750,000 if DFP not submitted by July 27, 1990	Certification required on or before July 27, 1990 (only if DFP not submitted on or before July 27, 1990); DFP required when submitting next license renewal after July 27, 1990.	Same as above
Holder of specific license issued before July 27, 1990 (§40.36-(c)(3))		> 10 mCi, but ≤ 100 mCi	Required for all licensees if certification not submitted	\$150,000 if DFP not submitted	On or before July 27, 1990	Same as above
Holder or applicant* for specific license		Less than threshold limits specified (<10 mCi)	Not required	Not required	Not applicable	Not applicable

*Applicant refers only to new applicants and not to existing license holders applying for a new license.

Part must submit a decommissioning funding plan as specified in 10 CFR 40.36(a) if they are allowed to possess and use source material in readily dispersible form in quantities greater than 100 mCi.

- Holders of NRC licenses under 10 CFR Part 40 issued on or after July 27, 1990, and applicants for licenses for source material under this Part have the option of submitting a decommissioning funding plan or certification of financial assurance in the amount of \$150,000 as specified in 10 CFR 40.36(b) if they are allowed to possess and use source material in readily dispersible form in quantities greater than 10 mCi and less than or equal to 100 mCi.
- Holders of an NRC license under Part 40 issued before July 27, 1990, for source material in a readily dispersible form and with possession limits greater than 100 mCi have the option to submit either a decommissioning funding plan or certification of financial assurance in the amount of \$750,000, as specified in 10 CFR 40.36(c)(2). In either case, the licensee must submit the financial assurance on or before July 27, 1990. If the licensee chooses to submit a certification of financial assurance, the licensee must submit a decommissioning funding plan in any application for a license renewal.
- Holders of an NRC license under Part 40 issued before July 27, 1990, for source material in a readily dispersible form and with possession limits greater than 10 mCi and less than or equal to 100 mCi have the option to submit either a decommissioning funding plan or certification of financial assurance in the amount of \$150,000, as specified in 10 CFR 40.36(c)(3). In either case, the licensee must submit the financial assurance on or before July 27, 1990.

Licensees or applicants under 10 CFR Part 40 may submit financial assurance using one or more of the following mechanisms:

- Prepayment
- Surety/Other Guarantee/Insurance
- External Sinking Fund combined with Surety or Insurance
- Statement of Intent (Federal, State, or local government licensees only)

2.3 FINANCIAL ASSURANCE FOR LICENSEES UNDER 10 CFR PART 70

The decommissioning financial assurance requirements for holders of or applicants for NRC licenses under 10 CFR Part 70 depend on the amount and type of special nuclear materials (e.g., sealed or unsealed) that a licensee is allowed to possess. Exhibit 2-3 summarizes the financial assurance requirements promulgated in the June 27, 1988, rule for licensees under this 10 CFR Part 70.

2.3.1 Unsealed Special Nuclear Material

As shown in Exhibit 2-3, each applicant for a license under 10 CFR Part 70 authorizing the possession and use of unsealed special nuclear material in quantities exceeding 10^5 times the applicable quantities set in Appendix C to 10 CFR Part 20 must submit a DFP as specified in 10 CFR 70.25(a). The applicant also must submit a DFP when a combination of isotopes is involved, if R divided

Exhibit 2-3

DECOMMISSIONING FINANCIAL RESPONSIBILITY REQUIREMENTS
Nuclear Regulatory Commission (NRC) Licensees Under 10 CFR Part 70

Party Affected (Citation)	Type of Material	Quantity of Material	Decommissioning Funding Plan	Amount of Certification	Timing	Methods Available
Applicant* for specific license (\$70.25-(a))	Unsealed Special Nuclear Material	$> 10^5$ times the applicable quantities in Appendix C; or for a combination of isotopes if $R^{**}/10^5 > 1$	Required of all licensees	Not required	When applying for license	For all licensees, choice of the following options: 1) Prepayment; 2) Surety/Insurance/Guarantee; 3) External Sinking Fund and Surety/Insurance Method; or 4) Statement of Intent (public licensees only)
Applicant* for specific license (\$70.25-(b)(1)(2))		$> 10^4$ but $< 10^5$ times the applicable quantities; or for a combination of isotopes if $R^{**}/10^4 > 1$, but $R^{**}/10^5 \leq 1$	Required for all licensees if certification not submitted	\$750,000 if DFP not submitted	When applying for license	Same as above
Applicant* for specific license (\$70.25-(b)(1)(2))	Unsealed Special Nuclear Material	$> 10^3$ but $< 10^4$ times the applicable quantities; or for a combination of isotopes if $R^{**}/10^3 > 1$, but $R^{**}/10^4 \leq 1$	Required for all licensees if certification not submitted	\$150,000 if DFP not submitted	When applying for license	Same as above
Holder of specific license on or after July 27, 1990 (\$70.25-(c)(1))		$> 10^5$ times the applicable quantities; or for a combination of isotopes if $R^{**}/10^5 > 1$	Required of all licensees	Not required	When applying for license	Same as above
Holder of specific license issued on or after July 27, 1990 (\$70.25-(c)(1))	Unsealed Special Nuclear Material	$> 10^4$, but $< 10^5$ times the applicable quantities; or for a combination of isotopes if $R^{**}/10^4 > 1$, but $R^{**}/10^5 \leq 1$	Required for all licensees if certification not submitted	\$750,000 if DFP not submitted	When applying for license	Same as above

* Applicant refers only to new applicants and not to existing license holders applying for a new license.

**R is the sum of the ratios of the quantity of each isotope to the applicable value in Appendix C.

Exhibit 2-3 (continued)

DECOMMISSIONING FINANCIAL RESPONSIBILITY REQUIREMENTS
Nuclear Regulatory Commission (NRC) Licensees Under 10 CFR Part 70

Party Affected (Citation)	Type of Material	Quantity of Material	Decommissioning Funding Plan	Amount of Certification	Timing	Methods Available
	Unsealed Special Nuclear Material	$> 10^3$, but $< 10^4$ times the applicable quantities; or for a combination of isotopes if $R^{**}/10^3 > 1$, but $R^{**}/10^4 \leq 1$	Required for all licensees if certification not submitted	\$150,000 if DFP not submitted	When applying for license	For all licensees, choice of the following options: 1) Prepayment; 2) Surety/Insurance/Guarantee; 3) External Sinking Fund and Surety/Insurance Method; or 4) Statement of Intent (public licensees only)
Holder of specific license issued before July 27, 1990 (\$70.25-(c)(2))		$> 10^5$ times the applicable quantities; or for a combination of isotopes if $R^{**}/10^5 > 1$	Required for all licensees if certification not submitted	\$750,000 if DFP not submitted by July 27, 1990	Certification required on or before July 27, 1990 (only if DFP not submitted on or before July 27, 1990); DFP required when submitting next license renewal after July 27, 1990.	Same as above
Holder of specific license issued before July 27, 1990 (\$70.25-(c)(3))		$> 10^4$, but $< 10^5$ times the applicable quantities; or for a combination of isotopes if $R^{**}/10^4 > 1$, but $R^{**}/10^5 \leq 1$	Required for all licensees if certification not submitted	\$750,000 if DFP not submitted	On or before July 27, 1990	Same as above
Holder of specific license issued before July 27, 1990 (\$70.25-(c)(3))	Unsealed Special Nuclear Material	$> 10^3$, but $< 10^4$ times the applicable quantities; or for a combination of isotopes if $R^{**}/10^3 > 1$, but $R^{**}/10^4 \leq 1$	Required for all licensees if certification not submitted	\$150,000 if DFP not submitted by July 27, 1990	On or before July 27, 1990	Same as above
Holder of or applicant* for specific license	Sealed Special Nuclear Material	Not applicable	Not required	Not required	Not applicable	Not applicable
Holder of or applicant* for specific license	Unsealed Special Nuclear Material	$< \text{threshold limits specified}$	Not required	Not required	Not applicable	Not applicable

* Applicant refers only to new applicants and not to existing license holders applying for a new license.
 **R is the sum of the ratios of the quantity of each isotope to the applicable value in Appendix C.

by 10^5 is greater than 1, where R is defined as the sum of the ratios of the quantity of each isotope to the applicable value in Appendix C. Each holder of a license of the type described above issued on or after July 27, 1990, must also submit a DFP as specified in 10 CFR 70.25(c)(1).

Holders of such a license issued before July 27, 1990, must submit the certification of financial assurance in the amount of \$750,000 or the DFP on or before July 27, 1990. These licensees then must submit a DFP in any application for a license renewal.

Applicants for licenses authorizing possession of unsealed special nuclear material in quantities specified in 70.25(d) and holders of such licenses issued on or after July 27, 1990, must submit either a certification of financial assurance or a DFP as specified in 10 CFR 70.25(b) and 70.25(c)(i).

The amount of financial assurance required depends on the amount of unsealed special nuclear material that a licensee is authorized to possess. The licensee must submit certification, if the certification option is used, in the following amounts:

- \$750,000 If the unsealed special nuclear material is held in quantities greater than 10^4 and less than or equal to 10^5 times the applicable quantities in Appendix C of 10 CFR Part 20, or if the material is a combination of isotopes, if R (as defined in 10 CFR 70.25(a)) divided by 10^4 is greater than 1 and R divided by 10^5 is less than or equal to 1; and
- \$150,000 If the unsealed special nuclear material is held in quantities greater than 10^3 and less than or equal to 10^4 times the applicable quantities in Appendix C of 10 CFR Part 20, or if the material is a combination of isotopes, if R (as defined in 10 CFR 70.25(a)) divided by 10^3 is greater than 1 and R divided by 10^4 is less than or equal to 1.

Holders of licenses issued before July 27, 1990, that authorize the possession of special nuclear material in these amounts must submit certification of financial assurance on or before July 27, 1990. These facilities also have the option to submit a DFP instead of certification.

Applicants under 10 CFR Part 70 may submit financial assurance using one or more of the following mechanisms:

- Prepayment
- Surety/Other Guarantee/Insurance
- External Sinking Fund combined with Surety or Insurance
- Statement of Intent (Federal, State, or local government licensees only)

2.3.2 Sealed Special Nuclear Material

All licensees authorized to possess sealed special nuclear material are considered to be Category C facilities because these facilities are not addressed by the financial assurance requirements of 10 CFR 70.25, and therefore, they do not have to submit financial assurance for decommissioning.

2.4 FINANCIAL ASSURANCE FOR LICENSEES UNDER 10 CFR PART 72

Part 72 licensees are not allowed to submit certifications; all such licensees must prepare and submit cost estimates as part of decommissioning funding plans. The applicant for a license to possess power reactor spent fuel and other radioactive materials associated with spent fuel storage in an independent spent fuel storage installation (ISFSI) must submit estimated decommissioning costs and proof of the necessary financial arrangements to provide reasonable assurance prior to licensing that decommissioning will be carried out after the removal of spent fuel from storage.

Applicants under 10 CFR Part 72 may submit financial assurance using one or more of the following mechanisms:

- Prepayment
- Surety/Other Guarantee/Insurance
- External Sinking Fund combined with Surety or Insurance
- Statement of Intent (Federal, State, or local government licensees only)
- Electric utility licensees may use the methods allowed by 10 CFR 50.75(e)(1) and (3). In particular, this allows the use of an external sinking fund without having to combine it with a surety method.

3. FINANCIAL ASSURANCE MECHANISMS

3.1 INTRODUCTION

This section describes the financial mechanisms licensees and applicants may use under 10 CFR Parts 30, 40, 70, and 72 to demonstrate financial assurance for decommissioning. Descriptions of the allowable categories of financial assurance mechanisms are followed by explanations of each allowable instrument. A checklist of criteria detailing the provisions that should be included in each specific instrument is contained in an exhibit following the discussion of the instrument. Section 4 of the guide contains samples of recommended wording for allowable instruments. In addition, Appendices B through E list the documents that should be submitted to comply with decommissioning financial assurance requirements, depending on the particular financial instrument used.

3.1.1 Mechanisms Available to Types of Licensees or Applicants

All applicants for, or holders of licenses, under 10 CFR Parts 30, 40, 70, and 72 may use one or more of three kinds of mechanisms to comply with the financial assurance requirements for decommissioning:

3.1.1.1 Prepayment Method

Prepayment is a deposit by the licensee or applicant prior to the start of operation into a segregated account outside the licensee's or applicant's control. The deposit must be cash or liquid assets² that will retain their value over the projected operating life of the facility in an amount sufficient to pay estimated or certified decommissioning costs. Prepayment mechanisms include trust funds, escrow accounts, certificates of deposit, government funds, and deposits of government securities.

3.1.1.2 Surety, Insurance, or Parent Company Guarantee Method

A surety method, insurance, or parent company guarantee is an assurance that decommissioning costs will be paid by another party should the licensee default on the responsibility to carry out decommissioning. In addition to insurance, surety methods include payment surety bonds, letters of credit, lines of credit, and parent company guarantees.

3.1.1.3 External Sinking Fund (Combination of Sinking Fund Account and Surety Mechanism or Insurance)

An external sinking fund has two components: (1) a sinking fund account and (2) insurance or a surety mechanism such that the total of both components at least equals, at all times, the cost of decommissioning. The sinking fund account is a segregated account outside the licensee's or applicant's control. Any of the prepayment mechanisms can be used to hold the assets for the sinking fund account. Thus, the sinking fund account may be in the form of a trust, escrow account, government fund, certificate(s) of deposit, or deposit

²Liquid assets are cash or assets readily convertible into cash, such as marketable securities, notes, accounts receivable, or certificates of deposit.

of government securities. The second component of the external sinking fund can be insurance or a surety mechanism, i.e., a letter of credit, line of credit, or surety bond. As the proportion of the total that is held in the sinking fund account increases over time, however, the amount in insurance or a surety mechanism can decrease.

Part 72 licensees that are electric utilities may use an external sinking fund that is not combined with a surety mechanism or insurance (10 CFR 72.30(c)(5)).

3.1.2 Government Licensees or Applicants

In addition to the mechanisms described above, Federal, State, and local government licensees or applicants may provide financial assurance with a statement of intent. A government licensee or applicant may also combine a statement of intent with another form of financial assurance to satisfy decommissioning financial assurance requirements.

A statement of intent is a statement from the appropriate Federal, State, or local government entity indicating that funds for decommissioning will be obtained when necessary. The statement of intent should also include an estimate of decommissioning costs or state the amount of financial assurance required by the certification mechanism.

3.2 DESCRIPTION OF FINANCIAL ASSURANCE MECHANISMS

Three categories of financial assurance mechanisms are available to all licensees or applicants for licenses under 10 CFR Parts 30, 40, and 70, and with slight variations, Part 72: (1) prepayment mechanisms; (2) surety methods, insurance, and parent company guarantees; and (3) external sinking fund coupled with surety bond or insurance. Government licensees or applicants may also use a statement of intent to satisfy decommissioning financial assurance requirements.

All mechanisms used to comply with decommissioning financial assurance requirements must be at least equal in amount to the estimated or certified decommissioning costs for the facility. If several mechanisms are used in combination, their sum must at least equal the total amount required for decommissioning. The mechanisms may be used singly or in combination, except for the parent company guarantee which may not be combined with another financial assurance instrument.

Under the decommissioning regulations, "the surety method or insurance must be payable to a trust established for decommissioning costs" [10 CFR 30.35(f)(2)(ii), 40.36(e)(2)(ii), 70.25(f)(2)(ii), and 72.30(c)(2)(ii)]. This is because, by law, the Commission and agencies of some States cannot hold segregated funds or accounts, but instead must deposit funds received in the Federal or State treasury as general revenues. Such funds may not be available for decommissioning as required. Therefore, a special trust is created in which the funds can be held and from which they can be taken and used when necessary without being treated as general revenues. The trust established to receive funds from other financial instruments is referred to in this guide as a "standby" trust to distinguish it from a trust fund used as a stand-alone prepayment financial assurance mechanism. Standby trust funds must be established if the following instruments are used: letters or lines of credit and surety bonds.

Standby trust funds should be used with a parent company guarantee. Although not required by the regulation, licensees that use some prepayment mechanisms, i.e., certificates of deposit or government securities deposits, should also establish a standby trust or an escrow account to avoid the same problem. If the licensee defaults on decommissioning requirements, the issuer or provider will draw on the funds held in these instruments and deposit them directly into the standby trust or escrow account for use as required for decommissioning.

3.2.1 Prepayment Mechanisms

Prepayment, in accordance with the decommissioning regulations, is the deposit of an amount of cash or liquid assets sufficient to pay decommissioning costs at the time required. If used by an applicant for a license, prepayment must be deposited prior to the start of operations. If used by a current license holder, the prepayment must be deposited prior to the submission of proof of financial assurance (i.e., on or before July 27, 1990, or at the time the license is renewed, whichever is earlier).

The prepayment must be deposited into an account that is segregated from the licensee's or applicant's other assets and outside the licensee's or applicant's control. Several acceptable mechanisms can be used to segregate cash or liquid assets from other assets. These are:

- escrow agreements,
- certificates of deposit,
- government funds, and
- deposits of government securities, and
- trust funds.

Certain prepayment mechanisms (i.e., cash deposits, certificates of deposit, or instruments held by banks in trust or escrow arrangements) are subject to the dollar limitation of insurance provided by the Federal Deposit Insurance Corporation (FDIC) or the Federal Savings and Loan Insurance Corporation (FSLIC). Accordingly, the deposit in each bank will only be insured up to the basic amount of \$100,000 per deposit. The limitations also apply to the interest earned on deposits. If the principal is equal to the limit, therefore, the interest is uninsured. Thus, if a licensee is required to have financial assurance in an amount exceeding \$100,000, deposits should be split among several institutions so that all funds are fully insured by the FDIC or FSLIC. For example, if a licensee is using certificates of deposit to demonstrate financial assurance, he can procure the CDs directly from different institutions so that each CD is fully insured. The licensee or applicant can also purchase fully insured CDs issued by various banks through a broker. If \$750,000 in financial assurance is required, the licensee or applicant must procure at least eight insured CDs whose total value at the time of financial assurance certification is at least equal to \$750,000.

3.2.1.1 Escrow Agreements

An escrow account is an account containing funds deposited by the licensee or applicant and held by a bank or other financial institution. An escrow account differs from similar accounts in that the licensee or applicant provides funds that are held by the escrow until the happening of a contingency or the

performance of a condition, and then released to the grantee. The applicant or licensee deposits cash or other liquid assets in an amount at least equal to the certified or estimated cost of decommissioning in an escrow account. The bank or other institution where the funds are deposited is the escrow agent. The escrow itself is the agreement between the applicant or licensee and the escrow agent that specifies that the funds are to be held by the escrow agent until they are required for decommissioning activities or there is a determination by the Commission or State authority of failure by the licensee to satisfactorily perform decommissioning activities.

The escrow fund will be disbursed to the licensee upon presentation of certification to the escrow agent that (1) decommissioning is proceeding according to an approved plan, (2) the funds withdrawn will be expended for activities undertaken pursuant to the plan, and (3) the NRC has been given 30 days prior notice of the licensee's intent to withdraw funds from the escrow.

If the licensee defaults or is otherwise unable to carry out decommissioning, the Commission or State regulatory agency will order the escrow agent to release the funds to pay decommissioning costs. The escrow agreement should state that if the licensee does not default or if any funds remain in the escrow when decommissioning is complete, the escrow will be terminated and the funds returned to the licensee.

To be valid an escrow account must be supported by an underlying contractual agreement. For purposes of financial assurance, the underlying contract in this instance would be the NRC licensing agreement. The escrow becomes irrevocable when the applicant or licensee delivers the deposit to the escrow agent accompanied by the escrow agreement. The escrow remains irrevocable for the length of time stated in the escrow agreement. The terms may be amended, however, by mutual consent of the licensee or applicant and the Commission or State agency.

A checklist of review criteria for an escrow arrangement is provided in Exhibit 3-1. Samples of an escrow agreement and supporting contract are provided in Section 4.

3.2.1.2 Certificates of Deposit

A certificate of deposit (CD) is a bank's written acknowledgement of the receipt and deposit of a sum of money by the licensee or applicant and its promise of repayment. When using a CD to demonstrate financial assurance for decommissioning, the licensee deposits with a bank funds sufficient to cover the cost of decommissioning the licensed facility and receives a CD.

The wording of the CD may vary, provided it acknowledges the receipt of the licensee's deposit and contains a promise to pay the funds to the holder or named payee upon surrender of the certificate properly endorsed. The licensee or applicant must establish a standby trust or escrow account to receive funds drawn from the CD in the event of default. The Commission or State agency will draw on certificate(s) of deposit used as financial assurance instruments only if the licensee defaults on decommissioning obligations.

EXHIBIT 3-1

CHECKLIST OF CRITERIA FOR REVIEW OF ESCROW AGREEMENTS

- Copy of corporate by-laws or other evidence indicating that parties signing the financial instrument (for the applicant) are authorized to represent the organization in the transaction.
- Evidence that the financial instrument is an originally signed duplicate (e.g., an executed copy of the instrument).
- Introduction explaining the nature of the agreement between the parties and referring to the NRC license agreement concerning the regulatory obligations of the licensee or applicant.
- Identification of the escrow agent:
 1. Name and address of escrow agent;
 2. Position of escrow agent;
 3. Duties and liabilities of escrow agent.
- Recital of delivery of items placed in escrow to be disbursed in accordance with the directions, terms, and conditions that follow.
- Terms and conditions upon which escrowed items will be disbursed.
 1. Disbursement to licensee upon proper certification;
 2. Conditions that constitute default;
 3. Rights of parties upon default;
 4. Rights and duties of escrow agent upon default;
 5. Persons or names or positions to which funds may be released.
- Recital of irrevocability of escrow arrangement.
- Escrow agent's rights and duties.
- Annual valuation requirement.
- Method for amending or terminating escrow agreement upon mutual consent of the parties and notice to escrow agent.
- Compensation and expenses of escrow agent.
- Amendment of the escrow agreement.
- Interpretation of escrow agreement.
- Termination of escrow.
- Acceptance of appointment by escrow agent.
- Signatures of parties and escrow agent.

CDs may be either negotiable or non-negotiable. If a CD is negotiable, the issuing bank is obligated to pay the holder, whoever it is, when the CD falls due. If a CD is non-negotiable, the bank is obligated to pay the designated payee identified on the certificate.

- Both negotiable and non-negotiable CDs may be used to comply with decommissioning financial assurance requirements. If a negotiable CD is used, the trustee of a concurrently created standby trust or the escrow agent of an escrow account should have possession of the CD. If a non-negotiable CD is used, the trustee of a concurrently created standby trust or the escrow agent for an escrow account should be named as payee, unless the appropriate State agency can hold the funds without depositing them in State general revenues.
- The CD should be for a limited time period, such as 1 to 5 years, so that the face value can be adjusted for inflation and changes in decommissioning costs.
- Either time or demand CDs may be used for financial assurance. CDs can be payable either at a certain time (time deposits) or on demand after a specified period of time (usually 30 to 90 days) has elapsed (demand deposits). The demand CD allows the holder to withdraw funds at will at any time after the specified period has elapsed. The demand CD, therefore, may be better suited to the contingency requirements of a decommissioning financial assurance mechanism. Time CDs may be used, however, if their value is sufficient to cover decommissioning costs even if a penalty is incurred for withdrawal prior to the date specified on the certificate(s).
- CDs should include automatic renewal provisions and provisions requiring notice, in writing, prior to withdrawal of funds. Under such provisions, the certificate will continue indefinitely until the licensee defaults and the issuer receives written notice of default or of termination of the license by the Commission.

The bank issuing the CD generally has a set-off right to the funds that are deposited. A set-off right refers to the general rule that a bank may look to deposits it holds for the repayment of any indebtedness to it on the part of the depositor and may apply the debtor's deposit on his debts to the bank as they become due.

The set-off right does not apply, however, to special deposits. When money is deposited for a special purpose, a bank is ordinarily precluded from exercising the right of set-off. In addition, in order to warrant a set-off, it is ordinarily necessary that the money deposited belong to the depositor. Thus, the set-off rule does not apply where a bank has knowledge that the funds are deposited by the depositor for the use of another, or where the bank has knowledge of facts sufficient to put it on notice as to the ownership by someone other than the depositor.

To avoid a bank's right of set-off, licensees or applicants using non-negotiable CDs as financial assurance instruments should (1) name the trustee

of a standby trust or the escrow agent of an escrow account or the State regulatory agency (if the agency can hold special accounts) as payee, and (2) inform the issuing bank that the certificate is being used to demonstrate financial assurance in compliance with a regulatory requirement. Licensees using negotiable CDs should also inform issuers of the purpose for which the CDs are being obtained.

Criteria for review of certificates of deposit are provided in Exhibit 3-2. Examples of certificates of deposit are provided in Section 4.2.

3.2.1.3 Government Securities

The licensee wishing to use this mechanism will deposit government securities that have, at the time of deposit, a fair market value at least equal to the certified or estimated cost of decommissioning. In order to ensure that the securities deposited provide the greatest probability of full value at maturity, securities should be limited to securities that are guaranteed by the full faith and credit of the Federal government and adequately rated State or municipal bonds. These securities could be held by a trustee or an appropriate Federal or State agency. The security holder should be determined during licensing.

Acceptable securities backed by the Federal government include:

- Treasury bills;
- Treasury notes, and bonds;
- Government National Mortgage Association pass-through certificates (GNMAs); and
- Mortgage-backed bonds issued by the Federal National Mortgage Association (FNMA) and the Federal Home Loan Mortgage Corporation.

Acceptable State or municipal bond ratings are:

- BBB or higher as rated by Standard and Poor's Corporation; or
- Baa or higher as rated by Moody's Investors Service, Inc.

A licensee or applicant wishing to use securities to provide evidence of financial responsibility should comply with the following:

- The types of securities to be used must be approved during the licensing process. If used by an applicant for a license, securities must be transferred before the facility becomes operational. If used by a current license holder, securities must be transferred at the time financial assurance is certified.
- The licensee or applicant should establish a standby trust to receive funds if the bonds are cashed so that they will be available to the Commission or the State agency if needed for decommissioning.

If the licensee or applicant uses Treasury securities for financial assurance, procedures for receipt and possible reinvestment of interest should also be established. Interest payments on registered Treasury notes and bonds

EXHIBIT 3-2

CHECKLIST OF CRITERIA FOR
REVIEW OF CERTIFICATES OF DEPOSIT

- Copy of corporate by-laws or other evidence indicating that parties signing the financial instrument (for the applicant) are authorized to represent the organization in the transaction.
- Evidence that the financial instrument is an originally signed duplicate (e.g., an executed copy of the instrument).
- Time or demand deposit.
- Negotiable or non-negotiable instrument.
- Terms and conditions include:
 1. Name and address of bank;
 2. Number of certificate;
 3. Date of creation;
 4. Name of depositor;
 5. Name or position of payee;
 6. Sum deposited;
 7. Rate of interest;
 8. Renewable or nonrenewable at maturity;
 9. Period of renewal;
 10. Power of bank not to renew;
 11. Limitations on withdrawal;
 12. Notice requirements.
- Deposit insurance.

are mailed to the address furnished with the tender or subscription letter, and a special form must be completed if the mailing address changes. The proper registrant for Treasury securities would be either the Commission or the State regulatory agency, the trustee of a standby trust, or the escrow agent for an escrow account.

Deposit of government securities into a trust fund, escrow account, or specific State government account will require the careful attention of the trustee, escrow agent, or State fiduciary with respect to:

- Proper registration and endorsements;
- Reinvesting interest payments;
- Handling instruments with varying maturity dates;
- Reinvesting funds from matured and redeemed instruments; and
- Filing proper forms in a timely fashion with the appropriate government agencies. (A list of forms is provided in Section 4.4.)

To be certain that the financial assurance provided by a deposit of securities is adequate, the Commission or State regulatory agency should review the trust or escrow agreement or special government account to ensure that the trustee, escrow agent, or State fiduciary is aware of the special requirements for such securities. For example, Section 8(c) of the sample trust agreement provided in Section 4.3 of this guide expressly authorizes the trustee to make required securities transactions.

Exhibit 3-3 provides a checklist of criteria for review of government securities.

3.2.1.4 Special Government Funds or Accounts

Some State regulatory agencies may have the authority to establish special segregated government funds or accounts to receive and hold cash for specified purposes. To use this mechanism, the licensee or applicant and the State agency would agree that decommissioning funds in an amount at least equal to the decommissioning cost would be held in a special State account with the State agency acting as trustee or escrow agent for the funds. The licensee or applicant would deposit the required amount of cash or liquid assets in the special account prior to beginning facility operations. The State agency should provide written verification of its agreement to use funds solely to carry out decommissioning. The trust or escrow account should satisfy the criteria described under those titles in this guide and should contain the provisions detailed in the respective checklists. If the licensee defaults, the State regulatory agency would arrange for the necessary decommissioning work to be completed by 1) ordering the licensee to decommission the site, 2) ordering the trustee to select a decommissioning contractor, or 3) choosing a contractor themselves. In the event that the State agency was unable to exercise its options, the Commission would select the contractor. The special account or fund would terminate when decommissioning was complete, the license was terminated, and the facility site is available for unrestricted use for any public or private purpose. (Exhibit 3-4 provides a checklist of criteria for review of special government funds or accounts.)

EXHIBIT 3-3

CHECKLIST OF CRITERIA FOR REVIEW OF GOVERNMENT SECURITIES

- Copy of corporate by-laws or other evidence indicating that parties signing the financial instrument (for the applicant) are authorized to represent the organization in the transaction.
- Evidence that the financial instrument is an originally signed duplicate (e.g., an executed copy of the instrument).
- List of securities deposited:
 - Federal Treasury bills, notes, and bonds:
 - Government National Mortgage Association certificates (GNMAs).
 - Federal National Mortgage Association certificates (FNMA's).
 - Federal Home Loan Mortgage Corporation (FHLM) bonds.
 - State or municipal bonds rated:
 - BBB or higher as rated by Standard and Poor's Corporation; or
 - Baa or higher as rated by Moody's Investors Service, Inc.
- Date when securities were transferred to trust or escrow account.
- Current market value of securities deposited.
- Certified or estimated cost of decommissioning.
- Documentation of standby trust, including trust agreement and acknowledgement.
- or
- Documentation of escrow account established to hold government securities.

EXHIBIT 3-4

CHECKLIST OF CRITERIA FOR REVIEW OF
SPECIAL GOVERNMENT FUNDS OR ACCOUNTS

- Copy of corporate by-laws or other evidence indicating that parties signing the financial instrument (for the applicant) are authorized to represent the organization in the transaction.
- Evidence that the financial instrument is an originally signed duplicate (e.g., an executed copy of the instrument).
- List of assets deposited with State agency.
- Date on which assets were transferred to the special account.
- Value of assets deposited.
- Letter from State agency stating that use of funds will be restricted to covering the costs of decommissioning upon the licensee's default.
- Documentation of trust fund established to hold assets, including trust agreement and acknowledgement;
- or
- Documentation of established escrow account.

3.2.1.5 Trust Fund

Trust funds can be used by themselves to provide financial assurance. A trust that is acceptable to the Commission to satisfy decommissioning financial assurance requirements is an irrevocable three-party agreement whereby the licensee or applicant, called the grantor or trustor, transfers assets at least equal to the cost of decommissioning to a trustee, such as a bank, to hold on behalf of the beneficiary, the Commission or State agency. Decommissioning financial assurance regulations require that the trust and trustee must be acceptable to the Commission or the State regulatory agency. Acceptable trustees include appropriate State or Federal government agencies and entities that have the authority to act as trustees and whose trust operations are regulated and examined by a Federal or State agency [10 CFR 30.35(f)(2)(ii), 40.36(e)(2)(ii), 70.25(f)(2)(ii), and 72.30(c)(2)].

The terms and conditions of the trust are governed by a trust agreement. The trust agreement should identify the licensed facility and the decommissioning costs. It should also describe the property used to establish the trust fund and clearly indicate the grantor's intention that the property is to be held by a trustee. The trust agreement should also specify in detail all important aspects of the execution and administration of the trust and the disposition of the trust property. The document should state that the fund will be disbursed to the licensee only upon presentation to the trustee of certification that (1) decommissioning is proceeding according to a Commission-approved plan; (2) the funds withdrawn will be expended for activities undertaken pursuant to the plan; and (3) the Commission has been given 30 days prior notice of the licensee's intent to withdraw funds from the trust.

A trust can hold more than interest-bearing cash deposits. Other property, such as securities or government notes, can be placed in trust. If assets without a face value are used to fund the trust, the trustee will be required to sell them and place their cash value into the trust. The trust must contain sufficient assets to complete decommissioning activities at all times. After payment has been made into the trust, the trustee should annually, at least 30 days before the anniversary date of receipt of payment, furnish the licensee and the Commission or the State regulatory agency a statement confirming the value of the trust. Within 60 days of receiving the trustee's evaluation, the licensee must adjust the value of the fund, if necessary, to provide for increased cost due to inflation or new decommissioning cost estimates.

The trustee is generally empowered to invest the funds during the existence of the trust. Trustee investments, unless specified in the trust agreement, are governed by a "reasonably prudent investor standard" as defined in the statutes or case law of the jurisdiction where the trust is located. Any investment income accrues to the trust. The licensee may change the trustee if dissatisfied with the trustee's performance. A change in trustee does not affect the existence of the trust but a change can be made only by mutual agreement of the Commission or State agency, the licensee, and the trustee. Arrangement for a new trustee or for an alternate financial assurance mechanism should be made 60 days before the expiration of the trust agreement.

The trustor usually pays a fee for the initiation of the trust and for subsequent trust services.

3.2.1.6 Standby Trusts

Under decommissioning regulations, a licensee or applicant wishing to use a surety bond, letter of credit, line of credit, or insurance must (and a parent company guarantee should) establish a standby trust fund (see explanation in Section 3.2). (Licensees or applicants that use CDs or government securities should establish a standby trust or an escrow account.) The purpose of the standby trust is to receive any funds that are drawn from these financial assurance mechanisms by the issuing institutions and hold them until they are required for decommissioning. To satisfy the decommissioning requirements, a standby trust should satisfy the conditions specified above for trust funds. The wording of the standby trust should specify that its purpose is to receive and hold funds from a financial mechanism for use to satisfy the licensee's decommissioning obligations. The document should state that the fund will be disbursed to the licensee only upon presentation to the trustee of certification that (1) decommissioning is proceeding according to a Commission-approved plan; (2) the funds withdrawn will be expended for activities undertaken pursuant to the plan; and (c) the Commission has been given 30 days prior notice of the licensee's intent to withdraw funds from the trust.

(Exhibit 3-5 provides criteria for review of trust funds and standby trust agreements. Recommended wording for trust documents is provided in Section 4.)

3.2.2 Surety, Insurance, or Parent Company Guarantee Mechanisms

Surety methods for providing evidence of financial responsibility include surety bonds, letters of credit, or lines of credit. A licensee may also use a parent company guarantee based on the authorized financial test that is contained in Appendix A of 10 CFR Part 30 and referenced in 10 CFR Parts 40, 70, and 72. (The test is in this guide in sections 4.7.3 and 4.7.4.) A parent company guarantee may not be used in combination with other financial methods to satisfy decommissioning financial responsibility requirements.

Any surety method or insurance used to comply with decommissioning requirements must satisfy the following conditions:

The surety method or insurance must be open-ended. If written for a specified term, such as 5 years, the instrument must be renewed automatically unless 90 days or more prior to the renewal date, the issuer of the instrument notifies the Commission, the beneficiary, and the licensee of its intention not to renew. The instrument must also provide that the full face amount be paid to the beneficiary automatically prior to expiration without proof of forfeiture if the licensee fails to provide a replacement acceptable to the Commission within 30 days after receipt of notification of cancellation.

Financial assurance must remain in effect until the Commission has terminated the license. The licensee must provide continuous financial assurance from the time compliance with decommissioning financial assurance requirements is first demonstrated to the time decommissioning is complete, the facility license has been terminated, and the facility site is available for unrestricted use for any private or public purpose. If the licensee, issuer, or provider cancels or fails to renew an instrument, the licensee must provide alternative financial assurance within 30 days of giving or receiving notice of cancellation or non-renewal.

EXHIBIT 3-5

CHECKLIST OF CRITERIA FOR REVIEW OF TRUST AGREEMENTS^a

- Copy of corporate by-laws or other evidence indicating that parties signing the financial instrument (for the applicant) are authorized to represent the organization in the transaction.
- Evidence that the financial instrument is an originally signed duplicate (e.g., an executed copy of the instrument).
- Evidence that the financial institution has authority to act as a trustee.
- Purpose of trust ("whereas" clauses).
 - 1. Description
- Grantor or grantors (introductory paragraph).
 - 1. Names
 - 2. Addresses
- Trustee or trustees.
 - 1. Names and addresses
 - 2. Bank or corporate trustee (introductory paragraph)
- Identification of facilities and cost estimates (Section 2).^b
- Words of transfer, conveyance, and delivery in trust (Section 3).
- Payments constituting the trust fund (Section 4).
- Duration of trust.
- Description of trust property.
 - 1. Property described in attached schedule (Schedule B)
 - 2. Cash
 - 3. Stock and other securities
- Additions to trust.
- Distribution of trust principal (Section 5).
 - 1. Disbursement to licensee upon proper certification
 - 2. Payment for activities at NRC's direction in writing

^aAdapted from 17A Am Jur Legal Forms 2d (Rev) §251.94.

^bReferences are to recommended wording for trust agreements provided in Section 4.3 of this guide.

EXHIBIT 3-5 (continued)

3. Refund to grantor at NRC's specification in writing after completion of decommissioning activities
- Trust management (Sections 6-8).
 1. Discretionary powers
 2. Fiduciary duty
 3. Commingling and investment
 4. Sale or exchange of trust property
 5. Scope of investments
 6. Express powers of trustee
 7. Borrowing money and encumbering trust assets
 - (Optional provisions)
 8. Insurance
 9. Operation of business
 10. Compromise of claims
 - Taxes and expenses (Section 9).
 - Annual valuation (Section 10).
 - Advice of counsel (Section 11).
 - Authority, compensation, and tenure of trustees (Sections 12-14).
 1. Trustee compensation
 2. Successor trustee
 3. Instructions to trustee
 - Amendment of agreement (Section 15).
 - Irrevocability and termination (Section 16).
 - Immunity and indemnification (Section 17).
 - Law to govern construction and operation of trust (Section 18).
 - Interpretation and severability (Section 19).
 - Date (signature block).
 - Signatures (signature block).
 - Acknowledgements, seals or attestations, if necessary or desired (witness by notary public).
 - Acceptance of trust by trustee or trustees (acknowledgment).

The instrument must be payable to a standby trust. An applicant or licensee wishing to use a surety bond, letter of credit, line of credit, or insurance must (and a parent company guarantee should) also establish a standby trust fund. The purpose of the standby trust is to receive any funds that are drawn from these financial assurance mechanisms and hold them until they are required for decommissioning.

The following text describes surety methods, parent company guarantees, and insurance.

3.2.2.1 Surety Bond

A surety bond that satisfies decommissioning financial assurance requirements is a contract that the licensee or applicant (the principal) enters into with a qualified surety company (the surety) to assure the Commission or State regulatory agency that the licensee will fulfill its decommissioning obligations or, in the event of the licensee's default, the surety guarantees that decommissioning costs will be paid. Surety bonds written as payment bonds are acceptable for decommissioning financial assurance. These bonds are financial guarantee bonds that guarantee payment.

Licensees or applicants must acquire financial guarantee surety bonds from qualified sureties. For purposes of compliance with the decommissioning regulations, qualified sureties are those listed by the Department of the Treasury in the most recent edition of Circular 570. Circular 570, which lists qualified sureties, is published annually on approximately July 1, and updated in the Federal Register. The circular includes the underwriting limitation, that is, the maximum amount that each listed surety can guarantee in one bond. A surety can only exceed this amount if it brings another surety company into the agreement to share the risk. Several sureties acting together may not exceed the sum of their individual underwriting limitations. Circular 570 also lists the States in which each qualified surety is licensed to enter into surety bonds. A surety bond used to meet the decommissioning financial assurance requirements must be signed in a State where the surety company is licensed.

A surety is "jointly and severally" liable for the guaranteed payment, which means that the surety assumes the licensee's obligation as its own and can be sued jointly with the licensee for the obligation. Consequently, most surety bonds include an indemnification provision that requires the principal (the licensee) to reimburse the surety for costs incurred in satisfaction of the principal's obligations. (Criteria for review of surety bonds are provided in Exhibit 3-6.)

The surety bond limits the liability of the surety company to the face amount of the bond (sometimes called the penal sum). The penal sum of the bond must be an amount at least equal to the cost of decommissioning. The bond may provide, by an optional rider, that the penal sum can be increased up to 20 percent in any year without a new agreement between the parties. An applicant or licensee wishing to use a surety bond should verify during the licensing review that the amount and the terms and conditions are satisfactory to the Commission.

EXHIBIT 3-6

CHECKLIST OF CRITERIA FOR REVIEW OF SURETY BONDS

- Copy of corporate by-laws or other evidence indicating that parties signing the financial instrument (for the applicant) are authorized to represent the organization in the transaction.
- Evidence that the financial instrument is an originally signed duplicate (e.g., an executed copy of the instrument).
- Copy of Circular 570 of the U.S. Department of Treasury.
- Copy of broker/agent's power of attorney authorizing the broker/agent to issue bonds.
- Signed statement from applicant indicating that they will notify NRC if the surety company intends to cancel or go bankrupt.
- Date of execution of bond and effective date.
- Name and address of licensee (principal).
- Type of business organization; State of incorporation, if appropriate.
- NRC license number, identification of licensed facility(ies), decommissioning costs.
- Identification of corporate or individual surety(ies).
 - 1. Name;
 - 2. State of incorporation;
 - 3. Qualification in jurisdiction where facility covered by the surety bond is located.
- Designation of obligee (NRC or State regulatory agency).
- Recitation of consideration (fee paid for surety bond).
- Liability of surety.
 - 1. Penal sum
 - 2. Limitation of liability
 - 3. Condition(s) of liability
 - 4. Statement of joint and several liability
- Statement of licensee's or applicant's regulatory obligations as reason for bond.
- Scope and duration of bond.
 - 1. Restricted to single obligation
 - 2. Continuing
 - 3. Provisions for renewal

EXHIBIT 3-6 (Continued)

- Termination.
 1. By surety
 2. By principal
 3. Effective date of termination or revocation
- Adjustment of penal sum.
- Date.
- Signatures.
- Premium.

The licensee must establish a standby trust fund at the same time that it enters into the surety contract. The surety bond must contain terms requiring that any funds drawn under it will be placed directly into the standby trust fund by the surety company. Both the bond and the trust agreement should be submitted as evidence of financial responsibility. The wording of the surety bond and the wording of the standby trust should be similar to the wording of each recommended in Sections 4.5 and 4.3.2, respectively.

3.2.2.2 Letters of Credit

A standby letter of credit that is acceptable as evidence of financial responsibility is a binding arrangement by which the issuing party, such as a bank, agrees on behalf of the applicant or licensee (the account party) to place funds in the standby trust or to pay the State authority in the event of any default by the licensee in the performance of decommissioning. The standby letter of credit specifies the document(s) necessary to establish the fact of the licensee's failure to decommission as required, and the issuer must pay the beneficiary upon presentation of the document(s). The issuer extends this credit in exchange for a fee paid by the applicant or licensee. The arrangement also requires that the applicant or licensee repay, with interest, any funds drawn through the letter of credit. (Criteria for review of letters of credit are provided in Exhibit 3-7.)

The issuer should be an institution that has the authority to issue a letter of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency. All domestic commercial banks and savings banks, chartered U.S. branches of foreign banks operating in the United States, credit unions, and some savings and loan associations satisfy this requirement.

Under the letter of credit, the Commission or State authority will direct that funds be placed in the standby trust to pay the costs of decommissioning if the licensee fails to decommission as required. The funds in the standby trust would be used to pay the costs of decommissioning. Terms of the letter of credit must specify that funds withdrawn will be placed by the issuer directly into a standby trust fund upon presentation of a draft or other documents specified in the letter of credit. Both the letter of credit and the trust agreement should be submitted to evidence financial assurance. The exact terms of the arrangement between the licensee or applicant and the issuer will depend on individual circumstances, but the wording of the letter of credit should be similar to the instrument presented in Section 4.6.

3.2.2.3 Lines of Credit

A standby line of credit, sufficient to satisfy decommissioning financial responsibility requirements, is an arrangement of the licensee with a lender (generally a bank) in which the lender agrees to provide funds required for decommissioning of the licensee's facility. The maximum amount of credit stated in the contract between the applicant or licensee and the lender must be sufficient to at least equal the certified or estimated cost of decommissioning. Lines of credit are generally contingent on the continuing credit worthiness of the licensee, as analyzed by the issuer. To satisfy the financial responsibility requirements, however, the line of credit for decommissioning must not be contingent on the licensee's financial condition but must be provided without

EXHIBIT 3-7

CHECKLIST OF CRITERIA FOR REVIEW OF LETTERS OF CREDIT

- Copy of corporate by-laws or other evidence indicating that parties signing the financial instrument (for the applicant) are authorized to represent the organization in the transaction.
- Evidence that the financial instrument is an originally signed duplicate (e.g., an executed copy of the instrument).
- Evidence that the financial institution is regulated by Federal or State agency (e.g., member of FDIC, Federal Reserve System, etc.).
- The instrument must be entitled a letter of credit.
- The letter should be limited in amount.
- The letter of credit must contain a specified expiration date or be written for a definite term.
- The issuer's obligation to pay the beneficiary should arise only upon presentation of a draft or other documents specified in the letter of credit.
- The bank must not be called upon to determine a question of fact or law at issue between the licensee and the Commission or State regulatory agency.
- The licensee should have an unqualified obligation to reimburse the issuer for payments made under the letter of credit.

reservation. Accordingly, the licensee or applicant should obtain from the lender a written commitment to provide funds without reservation as necessary for decommissioning. Also, a standby trust must be created to receive funds from the line of credit in the event of the licensee's default on decommissioning obligations. The standby trust agreement and documentation of the line of credit must be submitted as evidence of financial assurance.

3.2.2.4 Insurance

An insurance policy sufficient to satisfy the decommissioning financial assurance requirements must insure, at the time it is acquired, the entire estimated or certified cost of decommissioning. An annuity policy, therefore, that would gradually increase in value over time to equal decommissioning costs would not be acceptable unless accompanied by some other mechanism to make up any shortfalls. The beneficiary of the insurance policy should be the trustee of the standby trust established to receive the insured funds when they are needed for decommissioning.

3.2.2.5 Parent Company Guarantees

A guarantee is a promise by one party (the guarantor) to pay specified debts or perform specified obligations of another party (the principal) in the event that the principal fails to satisfy the debts or obligations. When a guarantee is used to provide evidence of financial responsibility in a regulatory program, the primary obligation consists of the regulatory requirements the principal must satisfy. Decommissioning financial responsibility requirements may be satisfied by the use of a corporate guarantee, whereby the applicant's or licensee's parent corporation agrees to guarantee to provide specified dollar amounts to fund performance of decommissioning in the event of the licensee's default.

To be acceptable to the Commission, a parent company guarantee must satisfy the following conditions:

- The guarantee must be provided by the corporate parent of the licensee, and the parent must be able to demonstrate that they have majority control of the licensee's voting stock.
- The financial statement of the guarantor must be submitted in substantiation of its financial position.
- The guarantor must demonstrate that it has adequate resources to cover the costs of the decommissioning activities using Alternative I or II of the financial test included in Sections 4.7.3 and 4.7.4.
- After the initial financial test, the parent company must repeat the passage of the test within 90 days after the close of each succeeding fiscal year.
- The corporate guarantor's financial statements must be audited by an independent certified public accountant.
- On the basis of financial statements or other pertinent materials, the corporate parent may no longer meet the financial test criteria. If so,

the licensee must provide alternative financial assurance within 90 days after receiving notification of the determination. If the licensee fails to do so, the guarantor must provide alternative assurance in the name of the licensee.

(A checklist of review criteria for parent company guarantees is provided in Exhibit 3-8.)

3.2.2.6 Financial Test

A financial test is an accounting ratio requirement, net worth requirement, bond rating requirement, or similar requirement or combination of requirements that measures the financial strength of a firm providing financial assurance. The financial test is used by a firm that provides a guarantee to a licensee to show its own financial strength and its ability to support the guarantee. The corporate guarantee financial test requirements may be satisfied by meeting either of two alternative financial tests specified in 10 CFR Part 30, Appendix A, II.A.1 or II.A.2.

A special auditor's report must be submitted as part of the financial test (10 CFR Part 30, Appendix A, II.B). To satisfy the requirement, "the parent company's independent certified public accountant must have compared the data used by the parent company in the financial test, which is derived from the independently audited year end financial statements for the latest fiscal year, with the amounts in such financial statement." In connection with this, the licensee must inform NRC within 90 days of any matters coming to the auditor's attention which cause the auditor to believe that the data specified in the financial test should be adjusted and that the company no longer passes the test (10 CFR Part 30, Appendix A, II.B). This test must be repeated within 90 days after the closing of each succeeding fiscal year. In the event that the parent company no longer meets the financial test, 10 CFR Part 30, Appendix A, II.C, identifies notification and alternative financial assurance requirements. (Recommended wording for the parent company guarantee documents is provided in Section 4.7.6.)

3.2.3 External Sinking Fund

The external sinking fund is a mechanism for providing decommissioning financial assurance by combining a sinking fund account with a surety method (i.e., letter or line of credit or surety bond) or insurance. The sinking fund account can be in the form of mechanisms, such as cash deposits in an escrow or trust agreement, certificates of deposit, or deposit of government securities. The sinking fund account, whatever its form, must be segregated from the licensee's or applicant's other assets and outside the licensee's or applicant's control. It is established and maintained by setting aside funds and adding to the account periodically. The sinking account funds in combination with the surety mechanism or insurance must at all times at least equal the cost of decommissioning the facility at the time termination of operation is expected. As the amount held in the sinking fund increases over time, however, the amount of insurance or the amount of the surety mechanism can decrease correspondingly. Prepayment mechanisms and surety methods are described in detail in Sections

EXHIBIT 3-8

CHECKLIST OF CRITERIA FOR REVIEW OF PARENT COMPANY GUARANTEES

- Copy of letter from the chief executive officer of the licensee, verifying that it is a going concern* with positive tangible net worth (submitted annually at same time as parent company financial test in Sections 4.7.3 and 4.7.4 of this guide).
- Copy of corporate by-laws or other evidence indicating that parties signing the financial instrument (for the applicant) are authorized to represent the organization in the transaction.
- Evidence that the financial instrument is an originally signed duplicate (e.g., an executed copy of the instrument).
- Evidence that the corporate parent has majority control of the applicant's voting stock.
- Name and address of guarantor.
- Name and address of the licensee.
- Name and address of the regulatory agency.
- Recitation of the guarantor's authority to provide the guarantee, such as ownership of the licensee.
- Identification of the facilities for which the guarantee provides financial assurance and amounts guaranteed for decommissioning activities.
- Description of the primary obligation (decommissioning requirements).
- Unequivocal statement of guarantee.
 - a. Recitation of the consideration for the guarantee.
 - b. Liability of the guarantor.
 - a. Limitation of liability
 - b. Condition(s) of liability
 - c. Effect on liability of a change in the status of the licensee
- Statement that guarantor remains bound despite amendment or modification of license or decommissioning funding plan, reduction or extension of time of performance of required activities, or any other modification or alteration of an obligation of licensee.

*A "going concern" is a firm that is expected to continue operating at least long enough for current expectations and plans to be carried out and for the reasonably foreseeable future period after that.

EXHIBIT 3-8 (Continued)

- Notice requirements.
- Discharge of the guarantor.
- Termination and revocation.
 1. Termination on occurrence of contingency
 2. Voluntary revocation by guarantor
 3. Effective date of termination or revocation
- Date.
- Signatures.

3.2.1 and 3.2.2, respectively. (To review the instruments used in the external sinking funds, reviewers should use the criteria provided in the checklist for each respective instrument.)

3.2.4 Statement of Intent

A statement of intent may be used by Federal, State, or local government licensees to provide evidence of financial responsibility for decommissioning. The purpose of the statement of intent is to ensure that, early in the life of the licensed facility, government licensees make their funding bodies aware of the decommissioning requirements and costs and the eventual need for funding. The statement must identify the facility(ies) for which it guarantees financial assurance and the corresponding decommissioning costs. Also, it must indicate that funds for decommissioning costs will be requested and obtained sufficiently in advance of decommissioning to prevent delay of required activities. The statement of intent should include evidence of the authority of the officials of the Federal, State, or local government entity to sign the statement of intent. (A checklist of review criteria for Statements of Intent is provided in Exhibit 3-9.)

3.2.5 Combinations of Financial Mechanisms

Financial assurance mechanisms described in the previous section can be used in combination with one another. The parent company guarantee, however, is an exception and cannot be used in combination with other mechanisms (10 CFR 30.35(f)(2), 40.36(e)(2), 70.25(f)(2), and 72.30(c)(2)).

EXHIBIT 3-9

CHECKLIST OF CRITERIA FOR REVIEW OF STATEMENTS OF INTENT

- Copy of evidence indicating that parties signing the financial instrument (for the applicant) are authorized to represent the organization in the transaction.
- Evidence that the statement of intent is an originally signed duplicate.
- Identification of Federal, State, or local government licensee.
- Description of facilities for which Statement of Intent provides financial assurance and corresponding decommissioning costs.
- Statement that funds for decommissioning will be obtained when necessary.
- Recitation of authority to sign the Statement of Intent.
- Date.
- Names and positions of signatories.
- Signatures.

4. RECOMMENDED WORDING FOR FINANCIAL ASSURANCE INSTRUMENTS

The following financial instruments provide recommended language and provisions for compliance with decommissioning financial assurance requirements. Although the sample language is not required by decommissioning regulations, except for certain provisions in the parent guarantee, applicants will find that its use will simplify the application process and expedite Commission review.

4.1 RECOMMENDED WORDING FOR AN ESCROW AGREEMENT

ESCROW NUMBER _____

Paragraph 1. Establishment of Escrow Account

It is agreed between the parties that [insert name of licensee], licensee, has elected to establish an escrow account with [insert name, address, and position of escrow agent] to provide financial assurance for decommissioning of the facility(ies) in the amounts shown below:

[For each facility for which financial assurance is provided by the escrow agreement, list facility name, address, and license number, corresponding estimated or certified decommissioning costs, and indicate amount of financial assurance provided by the escrow account.]

Paragraph 2. Description of Property in Escrow Account

It is hereby acknowledged by the parties that [list the assets that have been delivered to the escrow agent and indicate the value of each item] has (have) been delivered to escrow and will remain in the escrow account created by this agreement until one of the two conditions stated in Paragraph 3 of this agreement has been satisfied.

[Insert name of licensee] warrants to and agrees with [insert name of escrow agent] that, unless otherwise expressly set forth in this Agreement: there is no security interest in the property in the escrow account or any part thereof; no financing statement under the Uniform Commercial Code is on file in any jurisdiction claiming a security interest in or describing (whether specifically or generally) the escrow account or any part thereof; and the escrow agent shall have no responsibility at any time to ascertain whether or not any security interest exists or to file any financing statement under the Uniform Commercial Code with respect to the escrow account or any part thereof.

Paragraph 3. Conditions of Escrow Agreement

The property described in Paragraph 2, above, will remain in the escrow account created by this agreement until one of the two following conditions has been satisfied: (1) the decommissioning activities required by 10 CFR [insert 30, 40, 70, or 72] have been completed, the license has been terminated, the facility site is available for unrestricted use for any public or private purpose, and the escrow account has been terminated by joint notice, in writing, from [insert name of licensee] and [insert NRC or name of the State regulatory agency]; or (2) the escrow agent, [insert name of the escrow agent], has been notified by the [insert NRC or name of the State regulatory agency], in writing, that the licensee, [insert name of licensee], has defaulted on the agreed obligation to carry out the decommissioning for the above listed facility(ies).

4.1 Escrow Agreement (Continued)

Paragraph 4. Disbursement of Property in Escrow Account

The [insert name of escrow agent] shall make payments from the escrow account upon the presentation of a certificate duly executed by the Secretary of the [insert name of licensee] attesting to the occurrence of the events, and in the form set forth in the attached Specimen Certificate, and upon presentation of a certification attesting to the following conditions:

- (1) that decommissioning is proceeding pursuant to an NRC-approved plan,
- (2) that the funds withdrawn will be expended for activities undertaken pursuant to that plan, and
- (3) that the NRC has been given 30 days prior notice of [insert name of licensee]'s intent to withdraw funds from the escrow account.

No withdrawal from the account can exceed ___ percent of the outstanding balance of the escrow account or _____ dollars, whichever is greater, unless NRC approval is attached.

Or upon [insert name of escrow agent] receiving written notification of licensee's default from the [insert NRC or State regulatory agency], [insert name of escrow agent] shall make payments from the escrow account as the [insert NRC or name of State regulatory agency] shall direct, in writing, to provide for the payment of the costs of the required decommissioning activities covered by this agreement. The escrow agent shall reimburse the licensee or other persons as specified by the [insert NRC or State regulatory agency] from the escrow account for expenses for required activities in such amounts as the [insert NRC or name of the State regulatory agency] shall direct in writing. In addition, the escrow agent shall refund to [insert name of licensee] such amounts as the [insert NRC or the name of the State regulatory agency] specifies, in writing. Upon refund, such funds shall no longer constitute part of the escrow account as described in paragraph 2, above.

Paragraph 5. Irrevocability

It is also agreed between the parties that this escrow became irrevocable upon delivery to [insert name of escrow agent], the escrow agent, and will remain irrevocable and in full force and effect until the occurrence of one of the conditions described in Paragraph 3, above.

Paragraph 6. Powers of the Escrow Agent

The only powers and duties of the escrow agent shall be to hold the escrow property and to invest and dispose of it in accordance with the terms of this agreement.

4.1 Escrow Agreement (Continued)

Escrow Account Management

The escrow agent shall invest and reinvest the principal and income of the escrow account and keep the escrow account invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the [insert name of licensee] may communicate in writing to the escrow agent from time to time, subject, however, to the provisions of the escrow account; the escrow agent shall discharge its duties with respect to the escrow account solely in the interest of [insert the NRC or the name of the State regulatory agency] and with the care, skill, prudence, and diligence, under the circumstances then prevailing, that persons of prudence, acting in like capacity and familiar with such matters, would use in the conduct of an enterprise of like character and with like aims; except that:

- (a) Securities or other obligations of the licensee, or any other owner or operator of the licensed facility(ies), or any of their affiliates as defined in the Investment Company Act of 1940, as amended (15 U.S.C. 80A-2(a)), shall not be acquired or held, unless they are securities or other obligations of the Federal government;
- (b) The escrow agent is authorized to invest the escrow account in time or demand deposits to the extent insured by an agency of the Federal government; and
- (c) The escrow agent is authorized to hold cash, awaiting investment or distribution uninvested, for a reasonable time and without liability for the payment of interest thereon.

Express Power of the Escrow Agent

Without in any way limiting the powers and discretion conferred upon the escrow agent by other provisions of this agreement or by law, the escrow agent is expressly authorized and empowered:

- (a) To register any securities held in the escrow account in its own name and to hold any security in bearer form or in book entry, or to deposit or arrange for the deposit of any securities issued by the U.S. Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the escrow agent shall at all times show that all such securities are part of the escrow account;
- (b) To deposit any cash in the escrow account in interest-bearing accounts or savings certificates to the extent insured by an agency of the Federal government;
- (c) To pay taxes, from the account, of any kind that may be assessed or levied against the escrow account and all brokerage commissions incurred by the escrow account.

4.1 Escrow Agreement (Continued)

Paragraph 7. Annual Valuation

After delivery has been made into this escrow account, the escrow agent shall annually, at least 30 days before the anniversary date of receipt of the property into the escrow account, furnish to the licensee and to the [insert NRC or the name of the State regulatory agency] a statement confirming the value of the escrow account. Any securities in the account shall be valued at market value as of no more than 60 days before the anniversary date of the establishment of the escrow account. The failure of the licensee to object in writing to the escrow agent within 90 days after the statement has been furnished to the licensee shall constitute a conclusively binding assent by the licensee, barring the licensee from asserting any claim or liability against the escrow agent with respect to the matters disclosed in the statement.

Paragraph 8. Successor Escrow Agent

Upon 90 days prior notice to the [insert NRC or State agency] and the licensee, [insert name of licensee], the escrow agent may resign; upon 90 days notice to the [insert NRC or State agency] and the escrow agent, the licensee, [insert name of licensee], may replace the escrow agent upon 30 days prior notice to the [insert NRC or State regulatory agency]; provided that such resignation or replacement is not effective until the escrow agent has appointed a successor escrow agent and this successor accepts the appointment. The successor escrow agent shall have the same powers and duties as those conferred upon the escrow agent under this agreement. Upon the successor's acceptance of the appointment, the escrow agent shall assign, transfer, and pay over to the successor the funds and properties then constituting the escrow account. If for any reason the licensee cannot or does not act in the event of the resignation of the escrow agent, the escrow agent may apply to a court of competent jurisdiction for the appointment of a successor, or for instructions. The successor escrow agent shall specify the date on which it assumes administration of the escrow account in a writing sent to the licensee, [insert the NRC or the name of the State regulatory agency], and the current escrow agent by certified mail 10 days before the change becomes effective. Any expenses incurred by the escrow agent as a result of any of the acts contemplated by this paragraph shall be paid as provided in Paragraph 10 of this agreement.

Paragraph 9. Instructions to the Escrow Agent

All orders, requests, and instructions from the licensee to the escrow agent shall be in writing, signed by such persons as are signatories to this agreement, or such other designees as the licensee or [insert the NRC or the name of the State regulatory agency] may designate in writing. All orders, requests, and instructions from the [insert the NRC or the name of the State regulatory agency] shall be in writing, signed by the designees of the [insert NRC or the name of the State regulatory agency]. The escrow agent shall be fully protected in acting in accordance with such orders, requests, and instructions. The escrow agent shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a

4.1 Escrow Agreement (Continued)

termination of the authority of any person to act on behalf of the licensee or [insert the NRC or the name of the State regulatory agency] under this agreement has occurred. The escrow agent shall have no duty to act in the absence of such orders, requests, and instructions from the licensee and/or [insert the NRC or the name of the State regulatory agency], except as provided in this agreement.

Paragraph 10. Compensation and Expenses of the Escrow Agent

The fee of the escrow agent for its services in establishing the escrow account shall be \$_____, payable at the time of the execution of this agreement, to be borne by [insert the name of the licensee], licensee.

Expenses of the escrow agent for the administration of the escrow account, the compensation of the escrow agent for services subsequent to the establishing of the escrow account to the extent not paid directly by the licensee, and all other proper charges and disbursements shall be paid from the escrow account.

Paragraph 11. Amendment to this Agreement

This agreement may be amended by an instrument in writing executed by the licensee and the escrow agent provided that the licensee has given 30 days prior notice to [insert NRC or State regulatory agency].

Paragraph 12. Termination

This agreement can be terminated by written notice of termination to the escrow agent signed by [insert the name of licensee], licensee, and the [insert NRC or the name of the State regulatory agency], or by the [insert NRC or the name of the State regulatory agency] alone, if the licensee has ceased to exist.

Paragraph 13. Interpretation

This escrow agreement constitutes the entire agreement between [insert the name of licensee] and [insert the name of the escrow agent]. The escrow agent shall not be bound by any other agreement or contract entered into by [insert name of licensee] and the only document that may be referenced in case of ambiguity in this escrow agreement is the licensing agreement between [insert name of licensee] and [the United States Nuclear Regulatory Commission or the State regulatory agency], or its successor.

Paragraph 14. Acceptance of Appointment by Escrow Agent

[Insert name, address, and position of escrow agent] does hereby acknowledge its appointment by [insert name of licensee], the licensee, to serve as escrow agent for the escrow account created under this agreement and agrees to carry out its obligations and duties as stated in this escrow agreement.

4.1 Escrow Agreement (Continued)

Paragraph 15. Severability

If any part of this agreement is invalid, it shall not affect the remaining provisions that will remain valid and enforceable.

Paragraph 16.

This agreement shall not become effective (and the escrow agent shall have no responsibility hereunder except to return the escrow property to the [insert name of licensee] until the escrow agent shall have received the following and shall have advised [insert name of licensee] in writing that the same are in form and substance satisfactory to the escrow agent:

Certified resolution of its Board of Directors authorizing the making and performance of this Agreement;

Certificate as to the names and specimen signatures of its officers or representative authorized to sign this Agreement and notices, instructions and other communications hereunder.

[Signatures and positions of the designees of the licensee and the escrow agent.]

[Insert name of escrow agent]

[Insert name of licensee]

By _____

By _____

Name _____

Name _____

Title _____

Title _____

Date.

Witness by Notary Public.

4.1.1 Specimen Certificate of Events

[Insert name and address of escrow agent]

Attention: Escrow Division

Gentlemen:

In accordance with the terms of the Agreement with you dated _____, I, _____, Secretary of [insert name of licensee], hereby certify that the following events have occurred:

1. [Insert name of licensee] is required to commence the decommissioning of its facilities located at [insert location of facility] (hereinafter called the decommissioning).
2. The plans and procedures for the commencement and conduct of the decommissioning have been approved by the United States Nuclear Regulatory Commission, or its successor, on _____ (copy of approval attached).
3. The Board of Directors of [insert name of licensee] has adopted the attached resolution authorizing the commencing of the decommissioning.

Secretary of [insert name of licensee]

Date

4.1.2 Specimen Certificate of Resolution

I, _____, do hereby certify that I am Secretary of [insert name of licensee], a [insert state of incorporation] corporation, and that the resolution listed below was duly adopted at a meeting of this Corporation's Board of Directors on _____, 19__.

IN WITNESS WHEREOF, I have hereunto signed my name and affixed the seal of this Corporation this _____ day of _____, 19__.

Secretary of [insert name of licensee]

RESOLVED, that this Board of Directors hereby authorizes the President, or such other employee of the Company as he may designate [insert, as appropriate, "to enter into an escrow agreement" or "to commence decommissioning activities at (name of facility)], with the [insert name of escrow agent] in accordance with the terms and conditions described to this Board of Directors at this meeting and with such other terms and conditions as the President shall approved with and upon the advice of Counsel.

4.2 CERTIFICATES OF DEPOSIT

4.2.1 Draft Negotiable Certificate of Deposit Payable at the Expiration of a Specified Time

_____ Bank of _____

Place _____

No. _____

(Date)

[Insert name of licensee or applicant] has deposited not subject to check _____ Dollars (\$ _____) payable to the order of the holder in current funds (not less than 30 days) _____ days after date, upon surrender of this certificate properly endorsed, with interest at the rate of _____ percent per annum from date to maturity only. The rate of interest payable hereunder is subject to change by the bank to such extent as may be necessary to comply with requirements of the Federal Reserve Board made from time to time pursuant to the Federal Reserve Act.

These funds are deposited for the purpose of providing financial assurance for the cost of decommissioning activities as required under Title 10 of the Code of Federal Regulations Part [insert 30, 40, 70, or 72]. Accordingly, this certificate will be renewed automatically unless written notice of (1) the default of the [insert name of licensee or applicant] on these obligations; (2) the termination of the facility license; or (3) the substitution of another financial assurance mechanism is received from [the name of licensee or applicant].

Cashier

4.2.2 Draft Non-negotiable Certificate of Deposit Payable on a Certain Date

CERTIFICATE OF DEPOSIT

Certificate of Deposit _____, 19

[Insert name of licensee or applicant] has deposited in the bank the sum of _____ Dollars (\$) payable to [State regulatory agency (if the agency can hold special funds under applicable state law), trustee of standby trust, or escrow agent], _____ months after date, with interest thereon at the rate of _____ percent per annum from date, upon presentation of this certificate properly endorsed. These funds are deposited for the purpose of providing financial assurance for the cost of decommissioning activities as required under Title 10 of the Code of Federal Regulations Part [insert 30, 40, 70, or 72]. Accordingly, this certificate will be renewed automatically unless written notice of (1) the default of the [insert name of licensee or applicant] on these obligations; (2) the termination of the facility license; or (3) the substitution of another financial assurance mechanism is received from [the name of the licensee or applicant].

The deposit documented in this certificate is insured by the Federal Deposit Insurance Corporation.

Cashier

4.3 RECOMMENDED WORDING FOR TRUST FUND AND STANDBY TRUST AGREEMENTS

4.3.1 Trust Fund Agreement

TRUST AGREEMENT

TRUST AGREEMENT, the Agreement entered into as of [date] by and between [name of NRC licensee], a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], herein referred to as the "Grantor," and [name and address of a national bank or other Trustee acceptable to the Commission or State regulatory agency], the "Trustee."

WHEREAS, the U.S. Nuclear Regulatory Commission (NRC), an agency of the U.S. Government, pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, has promulgated regulations in Title 10, Chapter I of the Code of Federal Regulations, Part [30, 40, 70, or 72]. These regulations, applicable to the Grantor, require that a holder of, or an applicant for a material license issued pursuant to 10 CFR Part [30, 40, 70, or 72] provide assurance that funds will be available when needed for required decommissioning activities.

WHEREAS, the Grantor has elected to use a trust fund to provide [insert "all" or "part"] of such financial assurance for the facilities identified herein;

WHEREAS, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this Agreement, and the Trustee is willing to act as trustee,

NOW, THEREFORE, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

- (a) The term "Grantor" means the NRC licensee who enters into this Agreement and any successors or assigns of the Grantor.
- (b) The term "Trustee" means the trustee who enters into this Agreement and any successor Trustee.

Section 2. Costs of Decommissioning. This Agreement pertains to the costs of decommissioning the materials and activities identified in License Number [insert license number] issued pursuant to 10 CFR Part [30, 40, 70, or 72] as shown in Schedule A (see Schedule A following Standby Trust Agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund (the Fund) for the benefit of [insert NRC or the name of the State agency]. The Grantor and the Trustee intend that no third party shall have access to the Fund except as provided herein.

Section 4. Payments Constituting the Fund. Payments made to the Trustee for the Fund shall consist of cash, securities, or other liquid assets acceptable to the Trustee. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B (see Schedule B following Standby Trust Agreement) attached hereto. Such property and any other property subsequently transferred to the Trustee are referred to

4.3.1 Trust Fund Agreement (Continued)

as the "Fund," together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount of, or adequacy of the Fund, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the NRC.

Section 5. Payment for Required Activities Specified in the Plan. The Trustee shall make payments from the Fund to the Grantor upon presentation to the Trustee of the following:

- a. A certificate duly executed by the Secretary of the Depositor attesting to the occurrence of the events, and in the form set forth in the attached Specimen Certificate (see sample certificate in Section 4.3.2.1 following standby trust), and
- b. A certificate attesting to the following conditions;
 - (1) that decommissioning is proceeding pursuant to an NRC-approved plan.
 - (2) that the funds withdrawn will be expended for activities undertaken pursuant to that Plan, and
 - (3) that the NRC has been given 30 days' prior notice of [insert name of licensee]'s intent to withdraw funds from the escrow fund.

No withdrawal from the fund can exceed _____ percent of the outstanding balance of the Fund or _____ dollars, whichever is greater, unless NRC approval is attached.

In the event of the Grantor's default or inability to direct decommissioning activities, the Trustee shall make payments from the Fund as the NRC shall direct, in writing, to provide for the payment of the costs of required activities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the NRC, or State agency, from the Fund for expenditures for required activities in such amounts as the NRC, or State agency, shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the NRC specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 6. Trust Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing

4.3.1 Trust Fund Agreement (Continued)

the Fund, the Trustee shall discharge its duties with respect to the Fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

- (a) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended (15 U.S.C. 80a-2(a)), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;
- (b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal government; and
- (c) For a reasonable time, not to exceed 60 days, the Trustee is authorized to hold uninvested cash, awaiting investment or distribution, without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

- (a) To transfer from time to time any or all of the assets of the fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and
- (b) To purchase shares in any investment company registered under the Investment Company Act of 1940 (15 U.S.C. 80a-1 et seq.), including one that may be created, managed, underwritten, or to which investment advice is rendered, or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretion conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

- (a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale, as necessary for prudent management of the Fund;
- (b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;
- (c) To register any securities held in the Fund in its own name, or in the name of a nominee, and to hold any security in bearer form or

4.3.1 Trust Fund Agreement (Continued)

in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, to reinvest interest payments and funds from matured and redeemed instruments, to file proper forms concerning securities held in the Fund in a timely fashion with appropriate government agencies, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee or such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the U.S. Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

- (d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal government; and
- (e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. After payment has been made into this trust fund, the Trustee shall annually, at least 30 days before the anniversary date of receipt of payment into the trust fund, furnish to the Grantor and to the NRC a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days before the anniversary date of the establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the NRC, or State agency, shall constitute a conclusively binding assent by the Grantor, barring the grantor from asserting any claim or liability against the Trustee with respect to the matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting on the advice of counsel.

4.3.1 Trust Fund Agreement (Continued)

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing with the Grantor. (See Schedule C in Section 4.3.3 following Standby Trust.)

Section 13. Successor Trustee. Upon 90 days notice to the [insert NRC or State agency], the Trustee may resign; upon 90 days notice to [insert NRC or State agency] and the Trustee, the Grantor may replace the Trustee; but such resignation or replacement shall not be effective until the Grantor has appointed a successor Trustee and this successor accepts the appointment. The successor Trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor Trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor Trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor Trustee or for instructions. The successor Trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the NRC or State agency, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are signatories to this agreement or such other designees as the Grantor may designate in writing. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. If the NRC or State agency issues orders, requests, or instructions to the Trustee these shall be in writing, signed by the NRC, State agency, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor, the NRC, or State agency, hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the NRC, or State agency, except as provided for herein.

Section 15. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor and the Trustee. All amendments shall meet the relevant regulatory requirements of the NRC.

Section 16. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 15, this trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the NRC or State agency, or by the Trustee and the NRC or State agency, if the Grantor ceases to exist. Upon termination of the trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor or its successor.

Section 17. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made

4.3.1 Trust Fund Agreement (Continued)

in good faith, in the administration of this trust, or in carrying out any directions by the Grantor, the NRC, or State agency, issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the trust fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 18. This Agreement shall be administered, construed, and enforced according to the laws of the State of [insert name of State].

Section 19. Interpretation and Severability. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement. If any part of this agreement is invalid, it shall not affect the remaining provisions which will remain valid and enforceable.

IN WITNESS WHEREOF the parties have caused this Agreement to be executed by the respective officers duly authorized and the incorporate seals to be hereunto affixed and attested as of the date first written above.

ATTEST:

[Insert name of licensee (Grantor)]
[Signature of representative
of Grantor]
[Title]

[Title]
[Seal]

[Insert name of Trustee]
[Signature of representative
of Trustee]
[Title]

ATTEST:

[Title]
[Seal]

4.3.2 Standby Trust Agreement

STANDBY TRUST AGREEMENT

TRUST AGREEMENT, the Agreement entered into as of [date] by and between [name of NRC licensee], a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], herein referred to as the "Grantor," and [name and address of a national bank or other Trustee acceptable to the Commission or State regulatory agency], the "Trustee."

WHEREAS, the U.S. Nuclear Regulatory Commission (NRC), an agency of the U.S. Government, pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, has promulgated regulations in Title 10, Chapter I of the Code of Federal Regulations, Part [30, 40, 70, or 72]. These regulations, applicable to the Grantor, require that a holder of, or an applicant for, a Part 30, 40, 70, or 72 license provide assurance that funds will be available when needed for required decommissioning activities.

WHEREAS, the Grantor has elected to use a [insert "letter of credit," "line of credit," "surety bond," "insurance policy," "parent guarantee," "certificate of deposit," or "deposit of government securities"] to provide [insert "all" or "part"] of such financial assurance for the facilities identified herein; and

WHEREAS, when payment is made under a [insert "letter of credit," "line of credit," "surety bond," "insurance policy," "certificate(s) of deposit," "deposit of government securities," or "parent guarantee"], this standby trust shall be used for the receipt of such payment; and

WHEREAS, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this Agreement, and the Trustee is willing to act as trustee,

NOW, THEREFORE, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

- (a) The term "Grantor" means the NRC licensee who enters into this Agreement and any successors or assigns of the Grantor.
- (b) The term "Trustee" means the trustee who enters into this Agreement and any successor Trustee.

Section 2. Costs of Decommissioning. This Agreement pertains to the costs of decommissioning the materials and activities identified in License Number [insert license number] issued pursuant to 10 CFR Part [30, 40, 70, or 72] as shown in Schedule A.

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a standby trust fund (the Fund) for the benefit of the NRC. The Grantor and the Trustee intend that no third party have access to the Fund except as provided herein.

4.3.2 Standby Trust Agreement (Continued)

Section 4. Payments Constituting the Fund. Payments made to the Trustee for the Fund shall consist of cash, securities, or other liquid assets acceptable to the Trustee. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee are referred to as the "Fund," together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount of, or adequacy of the Fund, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the NRC.

Section 5. Payment for Required Activities Specified in the Plan. The Trustee shall make payments from the Fund to the Grantor upon presentation to the Trustee of the following:

- a. A certificate duly executed by the Secretary of the Depositor attesting to the occurrence of the events, and in the form set forth in the attached Specimen Certificate, and
- b. A certificate attesting to the following conditions;
 - (1) that decommissioning is proceeding pursuant to an NRC-approved plan.
 - (2) that the funds withdrawn will be expended for activities undertaken pursuant to that Plan, and
 - (3) that the NRC has been given 30 days' prior notice of [insert name of licensee]'s intent to withdraw funds from the escrow fund.

No withdrawal from the fund can exceed _____ percent of the outstanding balance of the Fund or _____ dollars, whichever is greater, unless NRC approval is attached.

In the event of the Grantor's default or inability to direct decommissioning activities, the Trustee shall make payments from the Fund as the NRC shall direct, in writing, to provide for the payment of the costs of required activities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the NRC, or State agency, from the Fund for expenditures for required activities in such amounts as the NRC, or State agency, shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the NRC specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 6. Trust Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund,

4.3.2 Standby Trust Agreement (Continued)

without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge its duties with respect to the Fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

- (a) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended (15 U.S.C. 80a-2(a)), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;
- (b) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal Government, and in obligations of the Federal Government such as GNMA, FNMA, and FHLM bonds and certificates or State and Municipal bonds rated BBB or higher by Standard and Poors or Baa or higher by Moody's Investment Services; and
- (c) For a reasonable time, not to exceed 60 days, the Trustee is authorized to hold uninvested cash, awaiting investment or distribution, without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

- (a) To transfer from time to time any or all of the assets of the fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and
- (b) To purchase shares in any investment company registered under the Investment Company Act of 1940 (15 U.S.C. 80a-1 et seq.), including one that may be created, managed, underwritten, or to which investment advice is rendered, or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretion conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

- (a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale, as necessary to allow duly authorized withdrawals at the joint request of the Grantor and the NRC or to reinvest in securities at the direction of the Grantor;

4.3.2 Standby Trust Agreement (Continued)

- (b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;
- (c) To register any securities held in the Fund in its own name, or in the name of a nominee, and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, to reinvest interest payments and funds from matured and redeemed instruments, to file proper forms concerning securities held in the Fund in a timely fashion with appropriate government agencies, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee or such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the U.S. Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;
- (d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal government; and
- (e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. After payment has been made into this standby trust fund, the Trustee shall annually, at least 30 days before the anniversary date of receipt of payment into the standby trust fund, furnish to the Grantor and to the NRC a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days before the anniversary date of the establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the NRC, or State agency, shall constitute a conclusively binding assent by the Grantor, barring the grantor from asserting any claim or liability against the Trustee with respect to the matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting on the advice of counsel.

4.3.2 Standby Trust Agreement (Continued)

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing with the Grantor. (See Schedule C.)

Section 13. Successor Trustee. Upon 90 days notice to the [insert NRC or State agency], the Trustee may resign; upon 90 days notice to [insert NRC or State agency] and the Trustee, the Grantor may replace the Trustee; but such resignation or replacement shall not be effective until the Grantor has appointed a successor Trustee and this successor accepts the appointment. The successor Trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor Trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor Trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor Trustee or for instructions. The successor Trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the NRC or State agency, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are signatories to this agreement or such other designees as the Grantor may designate in writing. The Trustee shall be fully protected in acting without inquiry in accordance with the grantor's orders, requests, and instructions. If the NRC or State agency issues orders, requests, or instructions to the Trustee these shall be in writing, signed by the NRC, or State agency, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor, the NRC, or State agency, hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instruction from the Grantor and/or the NRC, or State agency, except as provided for herein.

Section 15. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee and the NRC, or State agency, or by the Trustee and the NRC or State Agency, if the Grantor ceases to exist.

Section 16. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 15, this trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the NRC or State agency, or by the Trustee and the NRC or State agency, if the Grantor ceases to exist. Upon termination of the trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor or its successor.

4.3.2 Standby Trust Agreement (Continued)

Section 17. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this trust, or in carrying out any directions by the Grantor, the NRC, or State agency, issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the trust fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 18. This Agreement shall be administered, construed, and enforced according to the laws of the State of [insert name of State].

Section 19. Interpretation and Severability. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement. If any part of this agreement is invalid, it shall not affect the remaining provisions which will remain valid and enforceable.

IN WITNESS WHEREOF the parties have caused this Agreement to be executed by the respective officers duly authorized and the incorporate seals to be hereunto affixed and attested as of the date first written above.

ATTEST:

[Insert name of licensee (Grantor)]
[Signature of representative
of Grantor]
[Title]

[Title]
[Seal]

[Insert name of Trustee]
[Signature of representative
of Trustee]
[Title]

ATTEST:

[Title]
[Seal]

4.3.2.1 Specimen Certificate of Events

[Insert name and address of trustee]

Attention: Trust Division

Gentlemen:

In accordance with the terms of the Agreement with you dated _____, I, _____, Secretary of [insert name of licensee], hereby certify that the following events have occurred:

1. [Insert name of licensee] is required to commence the decommissioning of its facility located at [insert location of facility] (hereinafter called the decommissioning).
2. The plans and procedures for the commencement and conduct of the decommissioning have been approved by the United States Nuclear Regulatory Commission, or its successor, on _____ (copy of approval attached).
3. The Board of Directors of [insert name of licensee] has adopted the attached resolution authorizing the commencement of the decommissioning.

Secretary of [insert name of licensee]

Date

4.3.2.2 Certificate of Resolution

I, _____, do hereby certify that I am Secretary of [insert name of licensee], a [insert state of incorporation] corporation, and that the resolution listed below was duly adopted at a meeting of this Corporation's Board of Directors on _____, 19__.

IN WITNESS WHEREOF, I have hereunto signed my name and affixed the seal of this Corporation this ____ day of _____, 19__.

Secretary

RESOLVED, that this Board of Directors hereby authorizes the President, or such other employee of the Company as he may designate, to commence decommissioning activities at [insert name of facility] in accordance with the terms and conditions described to this Board of Directors at this meeting and with such other terms and conditions as the President shall approve with and upon the advice of Counsel.

4.3.3 Sample Trust Agreement Schedules

TRUST AGREEMENT SCHEDULE

SAMPLE SCHEDULE A

This Agreement demonstrates financial assurance for the following cost estimates for the following licensed activities:

<u>U.S. NUCLEAR REGULATORY COMMISSION LICENSE NUMBER</u>	<u>NAME AND ADDRESS OF LICENSEE</u>	<u>ADDRESS OF LICENSED ACTIVITY</u>	<u>COST ESTIMATES FOR REGULATORY ASSURANCES DEMONSTRATED BY THIS AGREEMENT</u>
--	---	---	--

The cost estimates listed here were last adjusted and approved by the NRC on [date].

SAMPLE SCHEDULE B

AMOUNT _____

AS EVIDENCED BY _____

SAMPLE SCHEDULE C

_____, Trustee's fees shall be \$ _____.

4.3.4 Sample of Acknowledgement

ACKNOWLEDGEMENT

[The following is an example of the acknowledgement that must accompany the trust agreement for a standby trust fund or trust fund.]

STATE OF _____

To Wit: _____

CITY OF _____

On this _____ day of _____, before me, a notary public in and for the city and State aforesaid, personally appeared _____, and she/he did depose and say that she/he is the [title], of [_____] , national banking association, Trustee, which executed the above instrument, that she/he knows the seal of said association; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the association; and that she/he signed her/his name thereto by like order.

[Signature of notary
public]

My Commission Expires: _____

[Date]

4.4 FORMS REQUIRED FOR GOVERNMENT SECURITIES TRANSACTIONS

One or more of the following special forms may be required by the Bureau of the Public Debt for various actions concerning U.S. Treasury securities, depending on the type of security and action being taken.

<u>Form</u>	<u>Title and Purpose</u>
PD-345.	Description of Registered Securities. Used to change the address of the owner of registered Treasury (T) notes and bonds.
PD 1001.	Power of Attorney by Individual Authorizing Disposition of Registered Transferable Securities. Used to show that an individual has appointed another as his attorney-in-fact to act on his behalf.
PD-1003.	Power of Attorney by Corporation or Unincorporated Association Authorizing Disposition of Registered Transferable Securities. Used to show that a corporation or unincorporated association has appointed someone other than one of its officers as its attorney-in-fact to act on its behalf.
PD 1006.	Specific Power of Substitution Under Power of Attorney Granted to an Individual to Dispose of Registered Securities. Used as power of substitution to show that a corporation acting under power of attorney has appointed a substitute to act on its behalf.
PD 1010.	Resolution by Governing Body of an Organization Authorizing Assignment and Disposition of Specified Securities Owned in Its Own Right or in a Fiduciary Capacity. Used to authorize certain officers of an organization to act on its behalf.
PD 1014.	Certificate of Incumbency of Officers (Corporation or unincorporated association). Used to certify the incumbency of holders of the various offices of either a corporation or unincorporated association.
PD 1071.	Certificates of Ownership of United States Bearer Securities. Used to substantiate ownership of bearer Treasury securities when requesting payment of principal after (a) three months past maturity on T notes of less than seven years or (b) six months past maturity on T notes and bonds of more than seven years.
PD 1832.	Special Form of Detached Assignment for United States Registered Securities. Used to transfer registration of Treasury securities.

4.4 Forms Required for Government Securities Transactions (Continued)

- PD 2446. Certificate of Incumbency for Fiduciaries. Used to certify the incumbency of the fiduciaries of any trust estate, public or private committee, or other body not appointed by the court and designated by name in the registration of registered Treasury Securities.
- PD 3095. Request for Securities Transaction. Used to redeem, exchange registered securities for coupon issues, or exchange coupon securities for registered issues.
- PD 4632-1. Tender for Treasury Bills in Book-Entry Form at the Department of the Treasury (52-week bills). Used to purchase 52-week T bills at public auction.
- PD 4632-2. Tender for Treasury Bills in Book-Entry Form at the Department of the Treasury (26-week bills). Used to purchase 26-week T bills at public auction.
- PD 4632-3. Tender for Treasury Bills in Book-Entry Form at the Department of the Treasury (13-week bills). Used to purchase 13-week T bills at public auction.
- PD 4633. Request for Transactions in Book-Entry Treasury Bills Maintained by the Bureau of the Public Debt.
- PD 4633-1. Request for Reinvestment of Book-Entry Treasury Bills. Used to request reinvestment of either 13-, 26-, or 52-week book-entry T bills.
- PD 4633-2. Request for Reinvestment of Book-Entry Treasury Bills (IBM card). Same use as Form PD 4633-1.
- PD 4989. Statement of Account for Treasury Bills. Used to describe book-entry T bill account.

4.5 RECOMMENDED WORDING FOR PAYMENT SURETY BOND

PAYMENT SURETY BOND

Date bond executed: _____

Effective date: _____

Principal: [legal name and business address of licensee or applicant]

Type of organization: [insert "proprietorship," "joint venture,"
"partnership" or "corporation"]

State of incorporation: _____ (if applicable)

NRC license number, name and address of facility, and amount(s) for
decommissioning activity guaranteed by this bond: _____

Surety(ies) [name(s) and business address(es)]

Type of organization: [insert "proprietorship," "joint venture,"
"partnership" or "corporation"]

State of incorporation: _____ (if applicable)

Surety's qualification in jurisdiction where licensed facility(ies) is (are
located).

Surety's bond number: _____

Total penal sum of bond: \$ _____

Know all persons by these presents, That we, the Principal and Surety(ies) hereto, are firmly bound to the [insert U.S. Nuclear Regulatory Commission (hereinafter called NRC), or the name of the State agency] in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety; but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

WHEREAS, the U.S. Nuclear Regulatory Commission, an agency of the U.S. Government, pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, has promulgated regulations in Title 10, Chapter I of the Code of Federal Regulations, Part [30, 40, 70, or 72], applicable to the Principal, which require that a license holder or an

4.5 Payment Surety Bond (Continued)

applicant for a facility license provide financial assurance that funds will be available when needed for facility decommissioning;

NOW, THEREFORE, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of decommissioning of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility;

Or, if the Principal shall fund the standby trust fund in such amount(s) after an order to begin facility decommissioning is issued by [insert "the NRC" or the name of the State agency] or a U.S. district court or other court of competent jurisdiction;

Or, if the Principal shall provide alternative financial assurance and obtain the written approval of the [insert "NRC" or the name of the State agency] of such assurance, within 30 days after the date a notice of cancellation from the Surety(ies) is received by both the Principal and the [insert "NRC" or the name of the State agency], then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the [insert "NRC" or the name of the State agency] that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the [insert "NRC" or the name of the State agency] provided, however, that cancellation shall not occur during the 90 days beginning on the date of receipt of the notice of cancellation by both the Principal and the [insert "NRC" or the name of the State agency], as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the [insert "NRC" or name of State agency] and to Surety(ies) 90 days prior to the proposed date of termination, provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond from the [insert "NRC" or the name of the State agency].

The Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the [insert "NRC" or the name of the State agency].

4.5 Payment Surety Bond (Continued)

If any part of this agreement is invalid, it shall not affect the remaining provisions which will remain valid and enforceable.

In Witness Whereof, the Principal and Surety(ies) have executed this financial guarantee bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies).

Principal

[Signature(s)]

[Name(s)]

[Title(s)]

[Corporate seal]

Corporate Surety(ies)

[Name and address]

State of incorporation: _____

Liability limit: \$ _____

[Signature(s)]

[Name(s) and title(s)]

[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety(ies) above.]

Bond premium: \$ _____

4.6 RECOMMENDED WORDING FOR IRREVOCABLE STANDBY LETTER OF CREDIT

IRREVOCABLE STANDBY LETTER OF CREDIT NO. [INSERT NO.]

This Credit Expires [insert date]

Issued To: [Insert U.S. Nuclear Regulatory Commission; Washington, DC 20555;
or name and address of appropriate State agency.]

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit No. _____ in your favor, at the request and for the account of [applicant's name and address] up to the aggregate amount of [in words], U. S. dollars \$ _____, available upon presentation of:

- (1) your sight draft, bearing reference to this Letter of Credit No. _____, and
- (2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of _____."

This letter of credit is issued in accordance with regulations issued under the authority of the U.S. Nuclear Regulatory Commission (NRC), an agency of the U.S. Government, pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974. The NRC has promulgated regulations in Title 10, Chapter I of the Code of Federal Regulations, Part [30, 40, 70, or 72], which require that a holder of, or an applicant for, a license issued under 10 CFR Parts [30, 40, 70, or 72] provide assurance that funds will be available when needed for decommissioning.

This letter of credit is effective as of [date] and shall expire on [date at least 1 year later], but such expiration date shall be automatically extended for a period of [at least 1 year] on [date] and on each successive expiration date, unless, at least 90 days before the current expiration date, we notify both you and [licensee's name], by certified mail, as shown on the signed return receipts. If [licensee's name] is unable to secure alternative financial assurance to replace this letter of credit within 30 days of notification of cancellation the NRC may draw upon the full value of this letter of credit prior to cancellation. The bank shall give immediate notice to the applicant and the [insert "NRC" or name of State agency] of any notice received or action filed alleging (1) the insolvency or bankruptcy of the financial institution or (2) any violations of regulatory requirements that could result in suspension or revocation of the bank's charter or license to do business. The financial institution also shall give immediate notice if the bank, for any reason, becomes unable to fulfill its obligation under the letter of credit.

4.6 Irrevocable Standby Letter of Credit (Continued)

Whenever this letter of credit is drawn on under and in compliance with the terms of this letter of credit, we shall duly honor such draft upon its presentation to us within 30 days, and we shall deposit the amount of the draft directly into the standby trust fund of [licensee's name] in accordance with your instructions.

Each draft must bear on its face the clause: "Drawn under Letter of Credit No. _____, dated _____, and the total of this draft and all other drafts previously drawn under this letter of credit does not exceed [fill in amount]."

[Signature(s) and title(s) of official(s) of issuing institution]

[Date]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce," or "the Uniform Commercial Code"].

4.7 RECOMMENDED WORDING FOR DOCUMENTS RECOMMENDED TO SUPPORT CORPORATE GUARANTEE

4.7.1 Recommended Wording for Letter from Chief Executive Officer of Applicant or Licensee, Certifying that Applicant or Licensee Is a Going Concern with Positive Tangible Net Worth

(Address to U. S. Nuclear Regulatory Commission or State regulatory agency)

I am the chief executive officer of [name and address of firm], a [insert "proprietorship," "joint venture," "partnership," or "corporation"]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in 10 CFR Part [30, 40, 70, or 72].

I hereby certify that [name of firm] is currently a going concern, and that it possesses positive tangible net worth in the amount of _____.

This firm [insert "is required" or "is not required"] to file a Form 10K with the U.S. Securities and Exchange Commission for the latest fiscal year. This fiscal year of this firm ends on [month, day].

I hereby certify that the content of this letter is true and correct to the best of my knowledge.

[Signature]

[Name]

[Title]

[Date]

4.7.2 Recommended Wording for Letter from Chief Financial Officer of Corporate Parent, Including Cost Estimates and Data from Audited Financial Statements

(Address to U. S. Nuclear Regulatory Commission or State regulatory agency)

I am the chief financial officer of [name and address of firm], a [insert "proprietorship," "joint venture," "partnership," or "corporation"]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in 10 CFR Part [30, 40, 70, or 72].

[Complete the following paragraph regarding facility(ies) and associated cost estimates or certified amounts. For each facility, include its license number, name, address, and current cost estimates for the specified activities.]

This firm guarantees, through the parent company guarantee submitted to demonstrate compliance under 10 CFR Part [30, 40, 70, or 72], the decommissioning of the following facility(ies) owned or operated by subsidiary(ies) of this firm. The current cost estimates or certified amounts for decommissioning, so guaranteed, are shown for each facility:

<u>Name of Facility</u>	<u>Location of Facility</u>	<u>Certified Amount or Current Cost Estimates</u>
-------------------------	-----------------------------	---

This firm [insert "is required" or "is not required"] to file a Form 10K with the U.S. Securities and Exchange Commission for the latest fiscal year.

This fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements and footnotes for the latest completed fiscal year, ended [date].

[Insert completed Alternative I or Alternative II.]

I hereby certify that the content of this letter is true and correct to the best of my knowledge.

[Signature]

[Name]

[Title]

[Date]

4.7.3 Financial Test: Alternative I

- | | | | |
|-----|---|------------|-----------|
| 1. | Decommissioning cost estimates or certified amounts for facility [insert license number] (total of <u>all</u> cost estimates or certified amounts shown in paragraphs above) | \$ | _____ |
| *2. | Total liabilities (if any portion of the cost estimates for decommissioning is included in total liabilities on your firm's financial statement, deduct the amount of that portion from this line and add that amount to lines 3 and 4) | \$ | _____ |
| *3. | Tangible net worth** | \$ | _____ |
| *4. | Net worth | \$ | _____ |
| *5. | Current assets | \$ | _____ |
| *6. | Current liabilities | \$ | _____ |
| *7. | Net working capital (line 5 minus line 6) | \$ | _____ |
| *8. | The sum of net income plus depreciation, depletion, and amortization | \$ | _____ |
| *9. | Total assets in United States (required only if less than 90 percent of firm's assets are located in the United States) | \$ | _____ |
| | | <u>Yes</u> | <u>No</u> |
| 10. | Is line 3 at least \$10 million? | _____ | _____ |
| 11. | Is line 3 at least 6 times line 1? | _____ | _____ |
| 12. | Is line 7 at least 6 times line 1? | _____ | _____ |
| 13. | Are at least 90 percent of firm's assets located in the United States? If not, complete line 14. | _____ | _____ |
| 14. | Is line 9 at least 6 times line 1?
(Guarantor must meet two of the following three ratios) | _____ | _____ |
| 15. | Is line 2 divided by line 4 less than 2.0? | _____ | _____ |
| 16. | Is line 8 divided by line 2 greater than 0.1? | _____ | _____ |
| 17. | Is line 5 divided by line 6 greater than 1.5? | _____ | _____ |

*Denotes figures derived from financial statements.

**Tangible net worth is defined as net worth minus goodwill, patents, trademarks, and copyrights.

4.7.4 Financial Test: Alternative II

1. Decommissioning cost estimates or certified amounts for facility [insert license number] (total of all cost estimates or certified amounts shown in paragraphs above) \$ _____
 2. Current bond rating of most recent issuance of this firm and name of rating service _____ \$ _____
 3. Date of issuance of bond _____
 4. Date of maturity of bond _____
 - *5. Tangible net worth** (If any portion of estimates for decommissioning is included in total liabilities on your firm's financial statements, add the amount of that portion to this line.) \$ _____
 - *6. Total assets in United States (required only if less than 90 percent of firm's assets are located in the United States) \$ _____
- | | <u>Yes</u> | <u>No</u> |
|--|------------|-----------|
| 7. Is line 5 at least \$10 million? | _____ | _____ |
| 8. Is line 5 at least 6 times line 1? | _____ | _____ |
| *9. Are at least 90 percent of firm's assets located in the United States? If not, complete line 10. | _____ | _____ |
| 10. Is line 6 at least 6 times line 1? | _____ | _____ |

*Denotes figures derived from financial statements.

**Tangible net worth is defined as net worth minus goodwill, patents, trademarks, and copyrights.

4.7.5 Sample of Auditor's Special Report by Certified Public Accountant

CONFIRMATION OF CHIEF FINANCIAL OFFICER'S LETTER

We have examined the financial statements of [company name] for the year ended [date], and have issued our report thereon dated [date]. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary.

The [company name] has prepared documents to demonstrate its financial responsibility under the NRC's financial assurance regulations, 10 CFR Part [30, 40, 70, or 72]. This letter is furnished to assist the licensee [insert NRC license number and name] in complying with these regulations and should not be used for other purposes.

The attached schedule reconciles the specified information furnished in the chief financial officer's (CFO's) letter in response to the regulations with the company's financial statements. In connection therewith, we have

1. Confirmed that the amounts in the column "Per Financial Statements" agree with amounts contained in the company's financial statements for the year ended [date];
2. Confirmed that the amounts in the column "Per CFO's Letter" agree with the letter prepared in response to the NRC's request;
3. Confirmed that the amounts in the column "Reconciling Items" agree with analyses prepared by the company setting forth the indicated items; and
4. Recomputed the totals and percentages.

Because the procedures in 1-4 above do not constitute a full examination made in accordance with generally accepted auditing standards, we do not express an opinion on the manner in which the amounts were derived in the items referred to above. In connection with the procedures referred to above, no matters came to our attention that cause us to believe that the chief financial officer's letter and supporting information should be adjusted.

Signature

Date

4.7.5 Sample of Auditor's Special Report by Certified Public Accountant
(Continued)

SAMPLE SCHEDULE RECONCILING AMOUNTS CONTAINED IN
CHIEF FINANCIAL OFFICER'S LETTER WITH AMOUNTS IN FINANCIAL STATEMENTS

XYZ COMPANY

YEAR ENDED DECEMBER 31, 19XX

<u>Line Number in CFO's Letter</u>		<u>Per Financial Statements</u>	<u>Recon- ciling Items</u>	<u>Per CFO's Letter</u>
6	Total current liabilities	X		
	Long-term debt	X		
	Deferred income taxes	X		
		XX		
	Accrued decommissioning costs included in current liabilities		X	
	Total liabilities (less accrued decommissioning costs)			X
4	Net worth	XX		
	Less: Cost in excess of value of tangible assets acquired	X		
		XX		
	Accrued decommissioning costs included in current liabilities		X	
	Tangible net worth (plus decommissioning costs)			XX

(Balance of schedule is not illustrated.)

This illustrates the form of schedule that is contemplated. Details and reconciling items will differ in specific situations.

4.7.6 Recommended Wording for Parent Company Guarantee

PARENT COMPANY GUARANTEE

Guarantee made this [date] by [name of guaranteeing entity], a [insert "proprietorship," "joint venture," "partnership," or "corporation"] organized under the laws of the State of [insert name of State], herein referred to as "guarantor," to the U.S. Nuclear Regulatory Commission (NRC), or State agency found acceptable to the NRC, [insert name of State agency], obligee, on behalf of our subsidiary [licensee] of [business address].

Recitals

1. The guarantor has full authority and capacity to enter into this guarantee [if guarantor is a corporation, add the following phrase "under its bylaws, articles of incorporation, and the laws of the State of [insert guarantor's state of incorporation], its State of incorporation."] [If the guarantor has a Board of Directors, insert the following: "Guarantor has approval from its Board of Directors to enter into this guarantee."]
2. This guarantee is being issued to comply with regulations issued by the NRC, an agency of the U.S. Government, pursuant to the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974. NRC has promulgated regulations in Title 10, Chapter I of the Code of Federal Regulations, Part [insert 30, 40, 70, or 72] which require that a holder of, or an applicant for, a materials license issued pursuant to 10 CFR Part [30, 40, 70, or 72] provide assurance that funds will be available when needed for required decommissioning activities.
3. The guarantee is issued to provide financial assurance for decommissioning activities for [identify licensed facility(ies)] as required by 10 CFR Part [insert 30, 40, 70, or 72]. The decommissioning costs for which are as follows: [insert amount of decommissioning cost guaranteed for each identified facility].
4. The guarantor meets or exceeds the following financial test criteria [insert statement indicating which financial test is being used] and agrees to comply with all notification requirements as specified in 10 CFR Part [30, 40, 70, or 72].

The guarantor shall meet one of the following two financial tests:

- (a) (i) A current rating of its most recent bond issuance of AAA, AA, A or BBB as issued by Standard and Poor's, or Aaa, Aa, A or Baa as rated by Moody's; and
- (ii) Tangible net worth is at least \$10 million and at least six times the current decommissioning cost estimate (or prescribed amount if a certification is used); and

4.7.6 Parent Company Guarantee (Continued)

- (iii) Assets located in the United States amounting to at least 90 percent of its total assets or at least six times the current decommissioning cost (or prescribed amount if certification is used).

or

- (b) (i) Net working capital and tangible net worth each at least six times the current decommissioning cost estimates (or prescribed amount if certification is used); and
 - (ii) Assets located in the United States amounting to at least 90 percent of its total assets or at least six times the amount of the current decommissioning cost estimates (or prescribed amount if certification is used); and
 - (iii) Meets two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities that is greater than 0.1; and a ratio of current assets to current liabilities that is greater than 1.5; and
 - (iv) Tangible net worth of at least \$10 million.
5. The guarantor has majority control of the voting stock for the following licensee(s) covered by this guarantee. [List for each licensee: name, address, the facility(ies) owned or operated by each licensee, and the corresponding license number(s).]
6. Decommissioning activities as used below refers to the activities required by 10 CFR Part [30, 40, 70, or 72] for decommissioning of facility(ies) identified above.
7. For value received from [licensees], [If the guarantor is a corporation, add "and pursuant to the authority conferred upon the guarantor by ("the unanimous resolution of its directors" or "the majority vote of its shareholders"), a certified copy of which is attached,"] the guarantor guarantees to the [insert "NRC" or the name of the State agency] that if the licensee fails to perform the required decommissioning activities, as required by License No. [insert license number], the guarantor shall
- (a) carry out the required activities, or
 - (b) set up a trust fund in favor of the above identified beneficiary in the amount of these current cost estimates for these activities.

4.7.6 Parent Company Guarantee (Continued)

[If a State is the named beneficiary, the guarantee documentation should include written verification from the State agreeing to use the trust funds to carry out the required decommissioning activities for the named facility(ies).]

8. The guarantor agrees to submit revised financial statements, financial test data, and a special auditor's report and reconciling schedule annually within 90 days of the close of the parent guarantor's fiscal year.
9. The guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, it fails to meet the financial test criteria, the licensee shall send within 90 days of the end of the fiscal year, by certified mail, notice to the [insert "NRC" or the name of the State agency] that the licensee intends to provide alternative financial assurance as specified in 10 CFR [Part 30, 40, 70, or 72]. Within 120 days after the end of the fiscal year, the guarantor shall establish such financial assurance if the [licensee] has not done so.
10. The guarantor also agrees to notify the beneficiary promptly if the ownership of the licensee or the parent firm is transferred and to maintain this guarantee until the new parent firm or the licensee provides alternative financial assurance acceptable to the beneficiary.
11. The guarantor agrees that within 30 days after it determines that it no longer meets the financial test criteria or it is disallowed from continuing as a guarantor for the facility under License No. [insert license number], it shall establish an alternative financial assurance as specified in 10 CFR Part 30, 40, 70, or 72 as applicable, in the name of [licensee] unless [licensee] has done so.
12. The guarantor as well as its successors and assigns agree to remain bound jointly and severally under this guarantee notwithstanding any or all of the following: amendment or modification of license or NRC-approved decommissioning funding plan for that facility, the extension or reduction of the time of performance of required activities, or any other modification or alteration of an obligation of the licensee pursuant to 10 CFR Part [30, 40, 70, or 72].
13. The guarantor agrees that all bound parties shall be jointly and severally liable for all litigation costs incurred by the beneficiary [insert name] in any successful effort to enforce the agreement against the guarantor.
14. The guarantor agrees to remain bound under this guarantee for as long as [licensee] must comply with the applicable financial assurance requirements of 10 CFR Part [30, 40, 70, or 72], for the previously listed facility(ies), except that the guarantor may cancel this guarantee by sending notice by

4.7.6 Parent Company Guarantee (Continued)

certified mail to the [insert "NRC" or the name of the State agency] and to [licensee], such cancellation to become effective no earlier than 120 days after receipt of such notice by both the [insert "NRC" or the name of the State agency] and [licensee] as evidenced by the return receipts.

15. The guarantor agrees that if [licensee] fails to provide alternative financial assurance as specified in 10 CFR Part [30, 40, 70, or 72], as applicable, and obtain written approval of such assurance from the [insert "NRC" or the name of the State agency] within 90 days after a notice of cancellation by the guarantor is received by both the [insert "NRC" or the name of the State agency] and [licensee] from the guarantor, the guarantor shall provide such alternative financial assurance in the name of [licensee] or make full payment under the guarantee.
16. The guarantor expressly waives notice of acceptance of this guarantee by the [insert "NRC" or the name of the State agency] or by [licensee]. The guarantor also expressly waives notice of amendments or modification of the decommissioning requirements and of amendments or modifications of the license.
17. If the guarantor files financial reports with the U.S. Securities and Exchange Commission, then it shall promptly submit them to the [insert "NRC" or the name of the State agency] during each year in which this guarantee is in effect.

I hereby certify that this guarantee is true and correct to the best of my knowledge.

Effective date: _____

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary: _____

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U.S. Nuclear Regulatory Commission, "Standard Format and Content Guide for Financial Assurance Mechanisms Required for Decommissioning Under 10 CFR Parts 30, 40, 70, and 72," NUREG-1336, Revision 1, August 1989.

APPENDIX A
CHECKLIST FOR DECOMMISSIONING FINANCIAL ASSURANCE

NAME OF LICENSEE OR APPLICANT _____

MAILING ADDRESS _____

A. Licensee Part (check one of the following):

_____ Part 30 Licensee or Applicant _____ Part 70 Licensee or Applicant
_____ Part 40 Licensee or Applicant _____ Part 72 Licensee or Applicant

B. Check appropriate item in each category (if applicable)

1. _____ Date of Financial Assurance Submission
2. _____ Public Entity
_____ Private Entity
3. _____ Certification of Financial Assurance
_____ Decommissioning Funding Plan
4. (a) _____ Prepayment Option (See Appendix B)
_____ Trust Fund
_____ Escrow Account
_____ Certificate of Deposit
_____ Government Fund
_____ Deposit of Government Securities

(b) _____ Surety/Insurance/Other Guarantee (See Appendix C)
_____ Surety bond
_____ Letter of Credit
_____ Line of Credit
_____ Parent Company Guarantee/Financial Test*

(c) _____ External Sinking Fund, Sinking Account and Surety/
Insurance (See Appendix D)
_____ Trust Fund
_____ Escrow Account
_____ Certificate of Deposit
_____ Government Fund
_____ Deposit of Government Securities
_____ Surety Bond
_____ Letter of Credit
_____ Line of Credit

(d) _____ Statement of Intent (public entities only)

*May not be used in combination with any other instrument.

APPENDIX B
CHECKLIST FOR SUBMISSION OF PREPAYMENT

A. Check Appropriate Form of Prepayment

- ☐ Trust Fund
- ☐ Escrow Account
- ☐ Certificate(s) of Deposit
- ☐ Special Government Fund
- ☐ Deposit of Government Securities

B. Check Documents Submitted for Each Prepayment Mechanism

1. Trust Fund
 - ☐ Trust Agreement
 - ☐ Acknowledgement
2. Escrow Account
 - ☐ Escrow Agreement
3. Certificate(s) of Deposit
 - ☐ Certificate(s) of Deposit
 - ☐ Trust Agreement
 - ☐ Acknowledgement

or

 - ☐ Escrow Agreement*
4. Special Government Fund
 - ☐ Written Verification

and either

 - ☐ Trust Agreement and
 - ☐ Acknowledgement

or

 - ☐ Escrow Agreement*
5. Deposit of Government Securities
 - ☐ Verification of Approval of Securities

and either

 - ☐ Trust Agreement and
 - ☐ Acknowledgement

or

 - ☐ Escrow Agreement*

* With verification.

APPENDIX C

CHECKLIST FOR SUBMISSION OF SURETY/INSURANCE/PARENT COMPANY GUARANTEE

A. Check Appropriate Form of Surety/Insurance/Guarantee

- ☐ Surety Bond
- ☐ Letter of Credit
- ☐ Line of Credit
- ☐ Parent Company Guarantee/Financial Test*
- ☐ Insurance

B. Check Documents Submitted for Surety/Insurance/Guarantee

1. Surety Bond
 - ☐ Surety Bond
 - ☐ Standby Trust Agreement
 - ☐ Acknowledgement
2. Letter of Credit
 - ☐ Letter of Credit
 - ☐ Standby Trust Agreement
 - ☐ Acknowledgement
3. Line of Credit
 - ☐ Verification
 - ☐ Standby Trust Agreement
 - ☐ Acknowledgement
4. Parent Company Guarantee
 - ☐ Letter from Chief Executive Officer of Applicant or Licensee
 - ☐ Letter from Chief Financial Officer of Parent Company
 - ☐ Financial Test: Alternative [I or II]
 - ☐ Auditor's Special Report and Attached Schedule
 - ☐ Corporate Guarantee
 - ☐ Standby Trust Agreement
 - ☐ Acknowledgement
5. Insurance
 - ☐ Certificate of Insurance
 - ☐ Standby Trust Agreement
 - ☐ Acknowledgement

*May not be used in combination with any other instrument.

APPENDIX D

CHECKLIST FOR SUBMISSION OF EXTERNAL SINKING FUND

A. Check Mechanism in which Sinking Account will be held:*

- ☐ Trust Fund
- ☐ Escrow Account
- ☐ Certificate(s) of Deposit
- ☐ Special Government Fund
- ☐ Deposit of Government Securities

B. Check Appropriate Surety Method:*, **

- ☐ Surety Bond
- ☐ Letter of Credit
- ☐ Line of Credit
- ☐ Insurance

*See checklists for documents that should be submitted for mechanisms used in external sinking fund under the checklist for each respective mechanism.

**Part 72 electric utility licensees are exempt from Part B of this Appendix D.

APPENDIX E
CHECKLIST FOR STATEMENT OF INTENT

A. Type of Licensee (check one):

- ☐ Federal Government Licensee
- ☐ State Government Licensee
- ☐ Local Government Licensee

B. Check Documents Submitted for Statement of Intent

- ☐ Statement Guaranteeing Decommissioning
- ☐ Description of Authority of Government Entity to Make Statement of Intent

APPENDIX F
COST ESTIMATING TABLES

1. Planning and Preparation

Table 1

<u>Task</u>	<u>Supervisor</u>	<u>Work Days</u> <u>Foreman</u>	<u>H.P.</u>	<u>Clerical</u>	<u>Total</u>	<u>Total</u> <u>Cost</u>
1. Preparation of Documentation for Regulatory Agencies	_____	_____	_____	_____	_____	_____
2. Submittal of Decommissioning Plan to NRC when required by 10 CFR 30.36(c)(2), 40.42(c)(2), or 70.38(c)(2)*	_____	_____	_____	_____	_____	_____
3. Development of Work Plans	_____	_____	_____	_____	_____	_____
4. Procuring of Special Equipment	_____	_____	_____	_____	_____	_____
5. Staff Training	_____	_____	_____	_____	_____	_____
6. Characterization of Radiological Condition of the Facility (Including soil and tailings analysis or ground-water analysis, if applicable)	_____	_____	_____	_____	_____	_____
7. Other	_____	_____	_____	_____	_____	_____
8. Total	_____	_____	_____	_____	_____	_____

* For assistance in preparation of cost estimate for 10 CFR Part 72, consult NRC Office of Nuclear Material Safety and Safeguards.

APPENDIX F (Continued)
COST ESTIMATING TABLES

Table 2

<u>Position</u>	<u>Unit Cost for Workers</u>		<u>Worker Cost/year</u>
	<u>Basic Salaries (\$/yr)</u>	<u>Overhead Rate (%)</u>	
Supervisor	_____	_____	_____
Foreman	_____	_____	_____
Craftsman	_____	_____	_____
Technician	_____	_____	_____
Health Physicist	_____	_____	_____
Laborer	_____	_____	_____
Clerical	_____	_____	_____
Other	_____	_____	_____

2. Decontamination and/or Dismantling of Radioactive Facility Components*

	<u>No.</u>	<u>Dimensions</u>		<u>No.</u>	<u>Dimensions</u>
Glove Boxes	_____	(m ³)	Amount of Floor Space	_____	(m ²)
Fume Hood	_____	(m ³)	Ventilation Ductwork	_____	(m)
Hot Cells	_____	(m ³)	Amount of Wall Space	_____	(m ²)
Lab Benches	_____	(m)	Other	_____	_____
Sink and Drain	_____	(m)			

Table 3

Work Days

<u>Task</u>	<u>Super- visor</u>	<u>Fore- man</u>	<u>Tech- nicians</u>	<u>H.P.</u>	<u>Crafts- men</u>	<u>La- borer</u>	<u>Total</u>	<u>Total Cost</u>
1. Decon/Dis- mantle Major Components and/or Proc- essing and Storage Tanks	_____	_____	_____	_____	_____	_____	_____	_____
2. Decon/Dis- mantle Laboratories, Fume Hoods, Glove Boxes, Benches, etc.	_____	_____	_____	_____	_____	_____	_____	_____

*Indicate whether component is to be decontaminated to unrestricted release levels or packaged and disposed of at a low-level waste site.

APPENDIX F (Continued)
COST ESTIMATING TABLES

Table 3 (continued)

<u>Task</u>	<u>Work Days</u>						<u>Total</u>	<u>Total Cost</u>
	<u>Super- visor</u>	<u>Fore- man</u>	<u>Tech- nicians</u>	<u>H.P.</u>	<u>Crafts- men</u>	<u>La- borer</u>		
3. Decon/Dis- mantle Waste Areas	_____	_____	_____	_____	_____	_____	_____	_____
- Radwaste Areas								
- Scrap Recovery Areas								
- Other								
4. Decon/Dis- mantle Service Facilities	_____	_____	_____	_____	_____	_____	_____	_____
- Maintenance Shop								
- Decontamination Areas								
- Ventilation Systems								
- Other								
5. Decon/Dis- mantle Waste Treatment Facilities and Storage Areas on the Site (Including exhum and package contaminated soil and tail- ings, if any)	_____	_____	_____	_____	_____	_____	_____	_____
- Fluoride Lagoons								
- Nitrate Lagoons								
- CaF ₂ Waste Recovery								
- Ground Water Restoration								
- Other								

APPENDIX F (Continued)
COST ESTIMATING TABLES

Table 3 (continued)

<u>Task</u>	<u>Work Days</u>						<u>Total</u>	<u>Total Cost</u>
	<u>Super- visor</u>	<u>Fore- man</u>	<u>Tech- nicians</u>	<u>H.P.</u>	<u>Crafts- men</u>	<u>La- borer</u>		
6. Monitor for compliance, reclean and remonitor, if necessary	_____	_____	_____	_____	_____	_____	_____	_____
7. Other (e.g., contractor fees)	_____	_____	_____	_____	_____	_____	_____	_____

Table 4

<u>Equipment/Supply</u>	<u>Quantity</u>	<u>Cost</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

3. Packaging, Shipping, and Disposal of Radioactive Wastes

Table 5

<u>Waste Type</u>	<u>Volume (m³)</u>	<u>No. of Containers</u>	<u>Type of Containers</u>	<u>Unit Cost of Container</u>	<u>Cost of Container</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
<u>Total</u>	_____	_____	_____	_____	_____

Table 6

Distance Shipped	_____	(miles)
Unit cost for shipment	_____	(\$/mile/truckload)
Additional charges	_____	
Overweight	_____	(\$/mile)
Surcharges	_____	(\$/mile)

<u>Waste Type</u>	<u>No. of Shipments</u>	<u>Unit Cost for Shipping</u>	<u>Distance Shipped</u>	<u>Surcharge</u>	<u>Transportation Cost</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
Total	_____	_____	_____	_____	_____

1

(\$/m³)

(\$)₃

_____ (\$/m³)

(\$/m³)

Burial
Cost

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Total
Cost

WHAT'S NEW IN THIS EDITION

[illegible]

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Total
Cost

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

100

Keywords: child sexual abuse; disclosure; legal system

APPENDIX F (Continued)
COST ESTIMATING TABLES

6. Site Stabilization, Long-Term Surveillance (if applicable)

Table 10

<u>Task</u>	<u>Supervisor</u>	<u>Work Days</u>		<u>Clerical</u>	<u>Total</u>	<u>Total Cost</u>
		<u>Foreman</u>	<u>H.P.</u>			
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

APPENDIX G

CONVERSION TABLE FOR DETERMINING AMOUNT OF FINANCIAL ASSURANCE REQUIRED AS A FUNCTION OF RADIONUCLIDE ACTIVITY LEVELS

RADIONUCLIDE CONVERSION TABLE

ISOTOPE	10 CFR Part 20, App. C Activities (μ Ci)	Decomm. Funding Plan Required (unsealed) ($>10^5$ App. C)	\$150,000 (unsealed) ($>10^3, \leq 10^4$)	\$750,000 (unsealed) ($>10^4, \leq 10^5$)	\$75,000 (sealed sources, plated sources) ($>10^{10}$)
Americium-241	0.01	>1 mCi	$>.01$ mCi, ≤ 0.1 mCi	>0.1 mCi, ≤ 1.0 mCi	>100 Ci
Antimony-125	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
Barium-133	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
Cadmium-109	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
Calcium-45	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
Carbon-14	100	>10 Ci	>100 mCi, ≤ 1 Ci	>1 Ci, ≤ 10 Ci	$>1,000,000$ Ci
Cerium-144	1	>100 mCi	>1 mCi, ≤ 10 mCi	>10 mCi, ≤ 100 mCi	$>10,000$ Ci
Cesium-134	1	>100 mCi	>1 mCi, <10 mCi	>10 mCi, ≤ 100 mCi	$>10,000$ Ci

Appendix G. Radionuclide Conversion Table (Continued)

ISOTOPE	10 CFR Part 20, App. C Activities (μ Ci)	Decomm. Funding Plan Required (unsealed) ($>10^5 \times$ App. C)	\$150,000 (unsealed) ($>10^3, \leq 10^4$)	\$750,000 (unsealed) ($>10^4, \leq 10^5$)	\$75,000 (sealed sources, plated sources) ($>10^{10}$)
Cesium-135	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
Cesium-137	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
Chlorine-36	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
25 Cobalt-60	1	>100 mCi	>1 mCi, ≤ 10 mCi	>10 mCi, ≤ 100 mCi	$>10,000$ Ci
Europium-152	1	>100 mCi	>1 mCi, ≤ 10 mCi	>10 mCi, ≤ 100 mCi	$>10,000$ Ci
Europium-154	1	>100 mCi	>1 mCi, ≤ 10 mCi	>10 mCi, ≤ 100 mCi	$>10,000$ Ci
Europium-155	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
Gadolinium-153	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
Hydrogen-3	1000	>100 Ci	>1 Ci, ≤ 10 Ci	>10 Ci, ≤ 100 Ci	$>10,000,000$ Ci
Indium-155	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci

Appendix G. Radionuclide Conversion Table (Continued)

ISOTOPE	10 CFR Part 20, App. C Activities (μ Ci)	Decomm. Funding Plan Required (unsealed) ($>10^5 \times$ App. C)	\$150,000 (unsealed) ($>10^3, \leq 10^4$)	\$750,000 (unsealed) ($>10^4, \leq 10^5$)	\$75,000 (sealed sources, plated sources) ($>10^{10}$)
Iodine-129	0.1	>10 mCi	>0.1 mCi, ≤ 1 mCi	>1 mCi, ≤ 10 mCi	$>1,000$ Ci
Iron-55	100	>10 Ci	>100 mCi, ≤ 1 Ci	>1 Ci, ≤ 10 Ci	$>1,000,000$ Ci
Krypton-85	100	>10 Ci	>100 mCi, ≤ 1 Ci	>1 Ci, ≤ 10 Ci	$>1,000,000$ Ci
63 Manganese-54	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
Nickel-59	100	>10 Ci	>100 mCi, ≤ 1 Ci	>1 Ci, ≤ 10 Ci	$>1,000,000$ Ci
Nickel-63	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
Niobium-93m	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
Platinum-193	100	>10 Ci	>100 mCi, ≤ 1 Ci	>1 Ci, ≤ 10 Ci	$>1,000,000$ Ci
Plutonium-239	0.01	>1 mCi	>0.01 mCi, ≤ 0.1 mCi	>0.1 mCi, ≤ 1.0 mCi	_____
Polonium-210	0.1	>10 mCi	>0.1 mCi, ≤ 1 mCi	>1 mCi, ≤ 10 mCi	$>1,000$ Ci

Appendix G. Radionuclide Conversion Table (Continued)

ISOTOPE	10 CFR Part 20, App. C Activities (μ Ci)	Decomm. Funding Plan Required (unsealed) ($>10^5 \times$ App. C)	\$150,000 (unsealed) ($>10^3, \leq 10^4$)	\$750,000 (unsealed) ($>10^4, \leq 10^5$)	\$75,000 (sealed sources, plated sources) ($>10^{10}$)
Promethium-147	10	>1 Ci	>10 mCi ≤ 100 mCi	>100 mCi ≤ 1 Ci	$>100,000$ Ci
Radium-226	0.01	>1 mCi	>0.01 mCi, ≤ 0.1 mCi	>0.1 mCi, ≤ 1.0 mCi	>100 Ci
Rubidium-87	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
G-4 Ruthenium-106	1	>100 mCi	>1 mCi, ≤ 10 mCi	>10 mCi, ≤ 100 mCi	$>10,000$ Ci
Samarium-151	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
Silver-110m	1	>100 mCi	>1 mCi, ≤ 10 mCi	>10 mCi, ≤ 100 mCi	$>10,000$ Ci
Strontium-90	0.1	>10 mCi	>0.1 mCi, ≤ 1 mCi	>1 mCi, ≤ 10 mCi	$>1,000$ Ci
Technetium-97	100	>10 Ci	>100 mCi, ≤ 1 Ci	>1 Ci, ≤ 10 Ci	$>1,000,000$ Ci
Technetium-99	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci
Thallium-204	10	>1 Ci	>10 mCi, ≤ 100 mCi	>100 mCi, ≤ 1 Ci	$>100,000$ Ci

Appendix G. Radionuclide Conversion Table (Continued)

ISOTOPE	10 CFR Part 20, App. C Activities (μCi)	Decomm. Funding Plan Required (unsealed) ($>10^5 \times$ App. C)	\$150,000 (unsealed) ($>10^3, \leq 10^4$)	\$750,000 (unsealed) ($>10^4, \leq 10^5$)	\$75,000 (sealed sources, plated sources) ($>10^{10}$)
Thorium (natural)	Readily disper- sible	$>100 \text{ mCi}$	$>10 \text{ mCi},$ $\leq 100 \text{ mCi}$	_____	_____
Thulium-170	10	$>1 \text{ Ci}$	$>10 \text{ mCi},$ $\leq 100 \text{ mCi}$	$>100 \text{ mCi},$ $\leq 1 \text{ Ci}$	$>100,000 \text{ Ci}$
Thulium-171	10	$>1 \text{ Ci}$	$>10 \text{ mCi},$ $\leq 100 \text{ mCi}$	$>100 \text{ mCi},$ $\leq 1 \text{ Ci}$	$>100,000 \text{ Ci}$
Tungsten-181	10	$>1 \text{ Ci}$	$>10 \text{ mCi},$ $\leq 100 \text{ mCi}$	$>100 \text{ mCi},$ $\leq 1 \text{ Ci}$	$>100,000 \text{ Ci}$
Uranium (natural)	Readily disper- sible	$>100 \text{ mCi}$	$>10 \text{ mCi},$ $\leq 100 \text{ mCi}$	_____	_____
Uranium-233	0.01	$>1 \text{ mCi}$	$>0.01 \text{ mCi},$ $\leq 0.1 \text{ mCi}$	$>0.1 \text{ mCi},$ $\leq 1.0 \text{ mCi}$	_____
Uranium- 234/235	0.01	$>1 \text{ mCi}$	$>0.01 \text{ mCi},$ $\leq 0.1 \text{ mCi}$	$>0.1 \text{ mCi},$ $\leq 1.0 \text{ mCi}$	_____
Zinc-65	10	$>1 \text{ Ci}$	$>10 \text{ mCi},$ $\leq 100 \text{ mCi}$	$>100 \text{ mCi},$ $\leq 1 \text{ Ci}$	$>100,000 \text{ Ci}$
Zirconium-93	10	$>1 \text{ Ci}$	$>10 \text{ mCi},$ $\leq 100 \text{ mCi}$	$>100 \text{ mCi},$ $\leq 1 \text{ Ci}$	$>100,000 \text{ Ci}$

Appendix G. Radionuclide Conversion Table (Continued)

ISOTOPE	10 CFR Part 20, App. C Activities (μ Ci)	Decomm. Funding Plan Required (unsealed) ($>10^5 \times$ App. C)	\$150,000 (unsealed) ($>10^3, \leq 10^4$)	\$750,000 (unsealed) ($>10^4, \leq 10^5$)	\$75,000 (sealed sources, plated sources) ($>10^{10}$)
Any alpha emitting radionuclide not listed above or mixtures of alpha emitters of unknown composition (with a half-life greater than 120 days)	0.01	>1 mCi	>0.01 mCi, ≤ 0.1 mCi	>0.1 mCi ≤ 1.0 mCi	>100 Ci
Any radionuclide other than alpha emitting radionuclides not listed above or mixtures of beta emitters of unknown composition (with a half-life greater than 120 days)	0.1	>10 mCi	>0.1 mCi ≤ 1.0 mCi	>1.0 mCi ≤ 10 mCi	$>1,000$ Ci

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