

**PROPOSED FINAL SUPPLEMENT STANDARD REVIEW PLAN:  
DECOMMISSIONING FUNDING INSURANCE  
FOR POWER REACTORS**

I. AREAS OF REVIEW

The NRC is issuing this draft supplement to describe criteria that will be used by the staff to review power reactor license applicants' and licensees' insurance methods of providing required decommissioning funding assurance. This document provides detailed criteria with respect to section III.2(f)(4) of NUREG-1577, Rev. 1 and as such will supplement NUREG-1577, Rev. 1, "Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance" (October 2003).

II. ACCEPTANCE CRITERIA

Decommissioning funding insurance may be referred to by different names such as "decommissioning insurance," "decommissioning liability insurance," "decommissioning expense liability policy," etc. The label is much less important than (1) the terms and conditions of the policy relating to (a) the amount and scope of coverage and (b) the availability of funds, and (2) the qualifications of the issuer of the insurance policy. For these key elements, acceptance criteria are provided below.

Amount and Scope of Insurance Coverage

1. Per 10 CFR 50.75(b)(1), Amount of Coverage Equal or Greater than Table of Minimum Amounts (§ 50.75(c)) for NRC § 50.2 Decommissioning Costs (e.g., excluding cost of removal and disposal of spent fuel and non-radioactive structures and materials beyond that necessary to terminate the license) or a Site-Specific Decommissioning Cost Estimate (§ 50.75(b)(4)).

Confirm that the policy alone or in combination with other approved mechanisms for decommissioning funding assurance provides an adequate amount of coverage ("liability limit") for NRC decommissioning costs, the total amount being not less than the table of minimum amounts (§ 50.75(b)(1)). Although the "Declarations" section of the policy (often the cover page) typically shows the "limit of liability" or "face amount," it is important to review the entire policy. The amount of coverage should be a specific dollar number and not be a schedule or formula contingent on projected earnings under the policy. Coverage for amounts only in excess of the minimum amounts (or site-specific cost estimate) and up to the actual cost of decommissioning does not satisfy the regulations. The insurance policy when used alone should guarantee at least the total amount of currently estimated decommissioning costs (NUREG-1577, Rev. 1 § III.2.f(2)).

Determine whether the amount of coverage includes both NRC and non-NRC costs. If a policy covers both NRC and non-NRC costs, they should be separately identified and only NRC required costs should be assessed as equal to or greater than the minimum amount. See §§ 2.1.2 and 2.1.7 Regulatory Guide 1.159 Rev. 1 and NUREG-1577, Rev. 1 § III.2.a(3). The same approach should be used if the amount of coverage includes costs for onsite spent fuel management (see NUREG-1700, Rev. 1).

Evaluate whether there are any stated sublimits. In particular, a policy containing a sublimit for NRC costs lower than the minimum amount may render the policy non-compliant if no other mechanisms are in place, even if the sublimit applies only in the event of premature closure or only in the event of cancellation, termination, non-renewal or rescission of the policy.

Different limits for decommissioning that occur during the initial license period or during the period of license renewal may be acceptable.

The amount of coverage should be capable of being adjusted (§ 50.75(b)(2) and § 2.1.5, Regulatory Guide 1.159, Rev. 1), at least if no other approved mechanisms are to be used. Typically, an adjustment is done through an “endorsement.” Find any “changes” clause (see #14 below). A policy with limits that can be adjusted down but not upwards would require that another financial assurance mechanism make up the difference.

Determine whether there are any “deductibles.” A deductible may be called a “retention,” a “self-insured retention,” “self-insurance,” or other term. Typically, the deductible is expressed as a flat dollar amount that must be paid by the insured before the insurer's liability under the policy is triggered. A deductible is acceptable if the policy provides “first dollar coverage” of the deductible by the insurer. First dollar coverage means that the insurer is responsible for paying the deductible amount (e.g., into the standby trust fund), while the insured is separately responsible for reimbursing the insurer for the amount of the deductible. Another type of deductible involves the insured sharing in some defined proportion of the decommissioning expenses from a dollar starting point (termed the “attachment point”) until some defined dollar ending point. Absent first dollar coverage expressly provided by the policy, the licensee must provide another assurance mechanism in combination with insurance to cover deductible amounts or demonstrate that its sinking funds can cover the deductible(s) (§ 50.75(e)(1)(vi)). The combined amount should at least equal the amount required under 10 CFR 50.75 or, after permanent termination of operations, currently estimated decommissioning costs (NUREG-1577, Rev. 1 § III.2.f(2)).

## 2. Annual Adjustment of Minimum Amount of Coverage (§ 50.75(c)(2))

If this is not the first year the policy is used, determine whether the amount of coverage provided satisfies the currently required adjusted minimum amount.

## 3. Scope of Coverage (§ 50.2)

Verify the scope of coverage, which should be for NRC defined decommissioning (§ 50.2) costs. Relevant language defining the scope may appear in different sections of the policy, such as under “Insuring Agreement,” “Definitions,” “Exclusions,” “Conditions,” and “Declarations.”

Review any policy language that defines or limits covered decommissioning costs only as those incurred by reason of work performed during the policy period; such a limit is inconsistent with the payment of funds into the standby trust prior to decommissioning costs being incurred by the licensee by reason of work actually performed.

If the scope of the policy covers non-NRC costs (e.g., greenfield costs) as well as NRC costs, verify that coverage of non-NRC costs is limited in amount so that those costs do not draw on money intended for NRC costs. Similarly, if the policy covers spent fuel management financial

assurance (§ 50.54(bb)), verify that coverage of these costs also is limited in amount and will not draw on money intended for coverage under § 50.75 (see C.11 “Use of Funds” Regulatory Guide 1.184).

Determine if the scope of coverage has been restricted by any “exclusions” written into the policy. Exclusions of costs not intended to be covered under decommissioning, not appropriate for coverage under decommissioning insurance, and costs covered under other insurance programs should be acceptable.

Costs NOT intended to be covered under decommissioning include:

- operational expenses
- accident response (see § 50.54(w))
- repair or replacement of damaged property
- on-site spent nuclear fuel management (see § 50.54(bb))
- decontamination or cleanup prior to permanent cessation of operations
- transportation and disposal of spent fuel

Costs not appropriate under insurance for decommissioning funding:

- costs due to fraudulent, dishonest, or criminal acts, unless such acts result in decommissioning
- fines, penalties, etc. imposed for violation of federal or state law
- intentional, willful, or deliberate non-compliance, unless such acts result in decommissioning
- bodily injury/property damage\*
- workers compensation, disability benefits, unemployment compensation\*
- post-accident decommissioning\*

Note: \*Costs covered under other insurance.

It is common to find legal fees excluded from insurance coverage in liability policies. However, such costs related to decommissioning must be covered by decommissioning insurance if incurred.

NRC review should be based on the entire policy and all endorsements and not solely on any Certificate of Insurance provided or solely on the Declarations page.

Certainty of Coverage: Issuer Qualifications

#### 4. Issuer Qualifications

Determine the identity of the issuer of the policy (not to be confused with any broker or agent involved in the transaction). The name and address of the issuer should be included in the policy (§ A.12.3, NUREG-1757).

Determine the principal place of business, i.e., “domicile” of the insurer, which may be a U.S. state or a foreign country where the insurer is incorporated. Special terms and conditions are appropriate for insurers domiciled outside of the U.S.

The insurer must be “licensed” to transact the business of insurance by authorities of the state where the relevant nuclear plant is located (§ 2.3.3, Regulatory Guide 1.159 Rev. 1), or approved or not objected to by such state authorities after notice to the state. One can verify that the insurer is licensed by checking with the insurance commission or agency in that state; many states provide on-line directories of their licensed insurers. The insurer should be able to provide written evidence of approval or non-objection by the state insurance regulatory authority for the State in which the plant is located.

Where practical, review databases or reference documents to determine whether the insurer is a commercial firm capable of selling policies to anyone or is instead an organization-- termed a “captive,” a “risk retention group (RRG),” or “mutual” insurer -- that can sell insurance only to one or a limited number of reactor owners.

A policy issued by a captive insurer that covers only a single owner's reactor(s), often termed a “pure captive,” will be problematic. Such a policy is synonymous to self-insurance, which NRC regulations do not permit in the absence of additional required financial qualifications.

A mutual, captive, or RRG that can insure more than a single owner's reactors also may be problematic unless the insurer covers a relatively large number of owners and reactors. Even if the insurer covers more than a single owner's reactors, the insurer still may not provide reasonable assurance of decommissioning funding due to insufficient capitalization, risk transfer, and risk distribution, among other factors.

A group captive, RRG, or mutual insurer is acceptable if:

- (a) the Internal Revenue Service has issued a letter ruling finding that premiums paid to the insurer will be considered deductible for tax purposes, and
- (b) the issuer of the insurance policy has received a financial strength or safety rating of A- or better from A.M. Best, A- or better from Standard & Poor's, A-3 or better from Moody's, A- or better from Fitch, or B- or better from Weiss Rating, as its most recent, issuer-specific rating, provided that the insurer has received a rating. An insurer should be able to show that it has requested a rating from the agencies listed above where a rating has not yet been assigned.

NOTE: The issuer of the policy must be acceptable to the NRC. As required for nuclear energy liability insurance, the Commission may require proof that the organization or organizations which have issued policies are legally authorized to issue them and do business in the United States and have clear ability to meet their obligations (§ 140.18(a)).

##### 5. The Trustee of the Standby Trust Must Be Acceptable to NRC (§ 50.75(e)(1)(iii)(A)(2))

An acceptable trustee includes (1) an appropriate State or Federal government entity or (2) an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State Agency (§ 50.75(e)(1)(iii)(A)(2)). See § 2.2.6 of Regulatory Guide 1.159, Rev. 1 for information on verifying the acceptability of financial institutions as

trustees. One can also use § 4.3.2.15 of NUREG-1757, Vol. 3 to determine the acceptability of a non-government trustee.

#### Certainty of Coverage: Terms and Conditions of Policy

##### 6. Covered Licensee(s)

The policy must include the name and address of the covered licensee(s), their NRC license number(s), and the name(s) and address(es) of the covered facility(ies), (§ A.12.3, NUREG-1757).

##### 7. Licensee's Regulatory Obligations

The policy should contain a statement of the licensee's regulatory obligations as the reason for the policy.

##### 8. Duration/Term of Coverage (§ 50.75(e)(1)(iii)(A)(1))

The policy must state an "effective date" (or "inception date") and may state an expiration or termination date.

Verify that the term of coverage either is open-ended, or, if written for a specified term ending on a particular date, that the policy is automatically renewed, unless the issuer notifies NRC, the beneficiary, and the licensee of its intent not to renew; as stated by § 50.75(e)(1)(iii)(A)(1), such a provision must require notice at least 90 days prior to the renewal date, as evidenced by return receipts.

##### 9. Cancellation/Termination and Non-Renewal

The policy should require a minimum of 90 days prior notice to NRC, as evidenced by return receipts, of the insurer's or the insured's intent to cancel, non-renew, or terminate the policy (§ A.12.3, NUREG-1757, Vol 3, & § 50.75(e)(1)(iii)(A)(1) (for non-renewal only)).

It is acceptable if the policy states that the insurer may cancel or terminate the policy if the premium is not paid. Some policies may provide only a short period (e.g., 10 days) prior to cancellation/termination in the event of non-payment of premium. Such a short period is not acceptable, because it does not allow sufficient time for the licensee to arrange alternative coverage or for NRC to take appropriate action prior to its cancellation/termination if the licensee fails to provide an acceptable substitute. A period of 90 days should be the minimum following notice to NRC and the insured. A provision stating that the insurer may not cancel, terminate, or non-renew the policy if the licensee is named as a "debtor in bankruptcy proceedings" is desirable.

The above provisions relating to cancellation are inapplicable to policies that cannot be canceled.

##### 10. Automatic Payment Prior to Cancellation/Termination/Non-renewal (§ 50.75(e)(1)(iii)(A)(1))

The insurance policy must provide that the full "face amount" for NRC decommissioning costs be paid to the beneficiary (i.e., decommissioning trust) automatically prior to policy cancellation/

termination/non-renewal “without proof of forfeiture” if the licensee fails to provide a replacement acceptable to the NRC within 30 days after the licensee or NRC receives notice of cancellation/termination/non-renewal, as evidenced by return receipts (§ 50.75(e)(1)(iii)(A)(1) provides 30 days after notice of intent to cancel). An insurance policy may specify more than one face or pay-out amount, but only the smallest pay-out amount will be accepted to determine compliance with the regulatory minimum amount. For pay-out amounts that are not expressed as absolute numbers but must be calculated using one or more variables whose values are not known or provided to the NRC, the reviewer will calculate those pay-out amounts conservatively, using values for the variables that yield the lowest amounts.

#### 11. Beneficiary

The “beneficiary” should be the standby trust, but may be defined as the licensee of the covered facility. A policy should be acceptable even if it does not designate a beneficiary, so long as it guarantees that funds drawn from the policy must be paid into the standby trust (see #21 below).

#### 12. Bankruptcy or Insolvency of the Insured

The policy should contain a provision to the effect that bankruptcy or insolvency (a condition of financial distress) of the insured does not relieve the insurer of any of its obligations.

#### 13. Primary Not Excess Insurance

The policy under review may contain a clause to the effect that if the licensee has other valid and collectible insurance applicable to radiological decommissioning, then the decommissioning insurance shall be “excess insurance” over such other coverage. This is acceptable because licensee property insurance may cover radiological decommissioning in certain circumstances. It also would be acceptable for the policy to designate its radiological decommissioning coverage as “primary,” with respect to all other applicable insurance coverages. In order to avoid delays in decommissioning due to any disputes regarding priority of coverage, the NRC shall treat the policy first issued as primary in the event of such disputes. If a radiological decommissioning policy also provides coverage for non-radiological decommissioning and/or for 10 CFR 50.54(bb) spent fuel management, the policy shall specify that such coverage is primary as to any other applicable coverage for non-radiological decommissioning and/or spent fuel management.

#### 14. Changes

The policy should state that its terms shall not be waived or changed except by written “endorsement”<sup>1</sup> issued to form a part of the policy and unless sixty days prior written notice has been given to the NRC, and the NRC has not objected within that time. A clause that permits the insurer and the insured to agree to changes in the policy over the disapproval of the NRC is not acceptable.

#### 15. Designated Agent

The policy should identify an agent of the insurer who is to receive all notices and other required communications and whose requests, demands, and agreements are deemed to have

been made directly by the insurer (see, for example, clause 16 in 10 CFR § 140.91). Complete contact information should be provided in the policy.

16. Authorized Signatories (§ 2.1.3, Regulatory Guide 1.159, Rev. 1)

The policy must be signed and dated. The parties signing the policy must be authorized to act for the licensee and the insurer in the transactions. A duly authorized representative may be either a named individual or any individual occupying a named position. All required signatures should be notarized. For a licensee that is a corporation or limited liability company, a principal executive officer of at least the level of vice president should sign; for a licensee that is a municipality, state, Federal, or other public agency, either a principal executive officer or ranking elected official should sign. A person is deemed to be a duly authorized representative if the person is authorized in writing by an individual described above, and the authorization specifies either an individual or a position having responsibility for the overall operation of the reactor or power company, such as the position of plant manager, a superintendent, or person of equivalent responsibility.

17. Original, Conformed Copy, or Photocopy of Original (§ 2.1.4, Regulatory Guide 1.159, Rev. 1)

NRC may review the original, a conformed copy, or a photocopy of the original policy. A conformed copy is a word for word copy of a document, which may be marked “conformed copy.” A conformed copy may substitute the printed or typewritten name of each signatory in place of each signature. If the copies are not signed, they should be accompanied by a declaration signed by an officer authorized to sign for the organization, certifying that they are “complete and accurate copies” of the original document. A photocopy is produced by a process that accurately reproduces the original and is marked as a “copy.” An originally signed duplicate is a conformed copy or photocopy that bears originally handwritten signatures.

18. Policy Must Conform to or Not Violate Applicable State Law (§ 2.3.1, Regulatory Guide 1.159, Rev. 1)

A determination that the policy conforms to or does not violate applicable state law can be based on opinion letters, which are best provided by an independent law firm or lawyer who practices insurance law and/or by an insurance broker's in-house counsel, so long as there is no conflict of interest (e.g., the broker does not represent the issuer of the policy). The opinion letter should identify the state whose law is applicable (e.g., the state where the reactor is located, the state where the policy is issued) and should state that the policy conforms to or does not violate the laws of that state. The counsel signing the letter should be admitted to the bar of the state whose law is at issue and the letter should so state; NRC can confirm the lawyer's bar admission by contacting the state bar association or by checking with legal reference books (e.g., Martindale-Hubbell Law Directory).

<sup>1</sup> An “endorsement” is a document that is treated as an integral part of the policy although it typically is issued later. Endorsements will be labeled as such and numbered.

#### 19. State Public Utility Commission Approval or Non-objection

For electric utility licensees and non-electric utility licensees with access to non-bypassable charges, the licensee's State public utility commission must have approved the use of the insurance policy or raised no objection to the use of the particular policy. There should be some documentation of such approval or non-objection (e.g., correspondence between the licensee and Public Utility Commission).

#### 20. Assignment

The policy should contain a provision allowing "assignment" (i.e., transfer) of the policy to a successor licensee. The policy may specify that the assignment is conditional upon the consent of the insurer so long as the policy also states that such consent "will not be unreasonably refused." Right of assignment enables a licensee to redeem value from the policy if ownership or operation of the covered facility is transferred to a new party. The insurer may want the right to consent to or refuse assignment in order to protect itself against transfers of ownership or operation that would unfairly prejudice the interests of the insurer in a manner not contemplated originally (e.g., transfer of the facility to an insolvent owner). Refusal to consent to assignment would be "unreasonable" where the interests of the insurer are not prejudiced by a successor licensee replacing the original insured party.

#### 21. Proceeds Payable to a Decommissioning Trust Fund (§ 50.75(e)(1)(iii)(A)(2))

The insurance policy must be payable to a trust established for decommissioning costs (§ 50.75(e)(1)(iii)(A)(2)). The trust may or may not be identified in the policy as the "beneficiary" of the insurance.

If there are any conditions or limitations in the policy regarding payments to the trust fund, these should be assessed for their impact on availability and certainty of financial assurance. For example, the policy should not state that payments shall be made only on the "default" of the licensee to satisfy decommissioning requirements.

A policy may identify several different parties to whom proceeds are payable, and these will need to be reviewed and clarified; NRC should expect that improvements in drafting can eliminate any ambiguities and inconsistencies in the policy.

Although the regulations clearly state that the insurance must be payable to a decommissioning trust, they do not state when or how to make the payments. Any policy terms that would impact the timing and amount of payments into the trust fund should be reviewed from the point of view of the guiding principle of having reasonable assurance of having funds when needed. The NRC's decommissioning regulations contemplate that decommissioning payments will be made from the trust and not by the insurer, so the insurer must timely transfer ample funds to the trust, if not all the funds covered by the policy at once, on a schedule consistent with access to funds allowed by § 50.82(a)(8). For funds not required to meet near term pay-out needs, it is acceptable if the policy offers the option of retaining those funds in the insurance mechanism.

## 22. Role and Rights of the Insurer

The insurer must invest all NRC decommissioning funds transferred from prepaid funds or an external sinking fund, and all earnings thereon, consistent with applicable state standards, or where no such standards apply, the prudent investor standard set forth in 18 CFR Part 35 Subpart E. This should be stated as a condition in the policy.

The policy may give the insurer the right to monitor all aspects of decommissioning to which the policy applies, and the right of reasonable access to the site subject to NRC requirements.

The staff shall evaluate whether there are policy provisions relating to “claims procedures” or “claims management,” which indicate that the insurer would be involved directly in the review, adjustment, approval, and payment of claims for decommissioning expenses or in any approval of decommissioning activities. These provisions are problematic and are not allowed in an insurance policy.

NOTE: The terms and conditions of the policy must be acceptable to the NRC. The NRC reserves the right to take the following steps to ensure an acceptable policy: either independently or in cooperation with the Federal Energy Regulatory Commission and the licensee's state Public Utility Commission, take additional actions as appropriate on a case-by-case basis, including ensuring or directing the addition or removal of clauses through written endorsement.

## 23. The Standby Trust Must Be Acceptable to NRC (§ 50.75(e)(1)(iii)(A)(2))

The terms of an acceptable standby trust would be similar to the sample standby trust language contained in Appendix B-3.2 of Regulatory Guide 1.159, Rev. 1. Licensees that are “electric utilities” (as defined in § 50.2) that use prepayment or external sinking fund trusts must include the terms and conditions found in § 50.75(h)(2) relating to disbursement or payments. Note that amended regulations applicable to decommissioning trusts of electric utility and non-electric utility licensees became effective on December 24, 2003. Section 50.75 requires that licensees that are not “electric utilities” (as defined in § 50.2) must include in their trusts the terms and conditions found in § 50.75(h)(1) relating to investment of funds (§ 50.75(h)(1)(i)), management of funds (§ 50.75(h)(1)(ii)), amendment of trusts (§ 50.75(h)(1)(iii)), and disbursement or payments from trusts (§ 50.75(h)(1)(iv)).

### III. EVALUATION FINDINGS

The reviewer verifies that sufficient information has been provided to satisfy the requirements of this Standard Review Plan section and the underlying regulations, and concludes that his or her evaluation is sufficiently complete and adequate to support the conclusion to be included in the staff's safety evaluation report that the applicant has satisfied the NRC's decommissioning funding assurance requirements using insurance.

### IV. IMPLEMENTATION

The following is intended to provide guidance to applicants and licensees regarding the NRC staffs plans for using this SRP.

Except in those cases in which the applicant proposes an acceptable alternative method for complying with specified portions of the NRC's regulations, the method described herein will be used by the staff in its evaluation of conformance with Commission regulations.

## V. REFERENCES

U.S. Nuclear Regulatory Commission, *Standard Review Plan on Power Reactor Licensee Financial Qualifications and Decommissioning Funding Assurance*, NUREG-1577, Rev. 1.

C.L. Pittiglio, *Standard Review Plan for Evaluating Nuclear Power Reactor License Termination Plans*, NUREG-1700, Rev. 1 (April 2000).

U.S. Nuclear Regulatory Commission, *Assuring the Availability of Funds for Decommissioning Nuclear Reactors*, Regulatory Guide 1.159, Rev. 1 (October 2003).

U.S. Nuclear Regulatory Commission, *Decommissioning of Nuclear Power Reactors*, Regulatory Guide 1.184 (July 2000).

U.S. Nuclear Regulatory Commission, *Consolidated NMSS Decommissioning Guidance: Financial Assurance, Recordkeeping, and Timeliness (Vol. 3)*, NUREG-1757 (September 2003).