

FINAL SUPPORTING STATEMENT FOR
10 CFR PART 50
DECOMMISSIONING
SECTION 3

50.33(k), 50.75, & 50.82, Decommissioning

3150-0011

ABSTRACT

Before a nuclear power plant begins operations, the licensee must establish or obtain a financial mechanism - such as a trust fund or a guarantee from its parent company - to ensure there will be sufficient money to pay for the ultimate decommissioning of the facility.

Each nuclear power plant licensee must report to the NRC at least once every two years on the status of its decommissioning funding for each reactor or share of a reactor that it owns. The report must estimate the minimum amount needed for decommissioning by using the formulas found in NRC regulations. Licensees may alternatively determine a site-specific funding estimate, provided that amount is greater than the generic decommissioning estimate. The staff performs an independent analysis of each of these reports to determine whether licensees are providing reasonable "decommissioning funding assurance" for radiological decommissioning of the reactor at the permanent termination of operation. These reports are required during decommissioning so the NRC can ensure the funds are being used appropriately.

These regulations affect 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities" licensees for operating nuclear power plants, licensed non-power production and utilization facilities (NPUF), other new technologies (ONTs), such as light (LWRs) and non-light-water reactors (non-LWRs), and power plants that are currently being decommissioned. Also, license and permit holders, and applicants under 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." These entities total 195 respondents for the current clearance cycle.

Licensees may voluntarily submit a request for an exemption to the Commission and maintain a record of that request. Licensees must perform certain tasks, maintain records and prepare reports to demonstrate their fulfillment of regulatory requirements. The reporting and recordkeeping requirements pertain to the amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75(b) and 10 CFR 50.75(c); the amount of decommissioning funds accumulated by the end of the calendar-year preceding the date of the report; a schedule of the annual amounts remaining to be collected; the assumptions used regarding rates of escalation in decommissioning costs; any contracts upon which the licensee is relying and any material changes to trust agreements.

A. JUSTIFICATION

1. Need for the Collection of Information

The information is needed in order to determine licensee compliance with the regulations set forth in 50.33(k), 50.75, & 50.82. Details of these regulations can be found at the end of this supporting statement in "Description of Requirements."

2. Agency Use and Practical Utility of Information

Applicants or licensees requesting approval to construct or operate utilization or production facilities are required by the Atomic Energy Act of 1954, as amended (the Act), to provide information and data that the NRC may determine necessary to ensure the health and safety of the public.

The NRC uses the records and reports required in this part to ascertain that licensees' licensing the design, construction, operation, and decommissioning of commercial nuclear power plants and other nuclear facilities programs are adequate to protect public health and minimize danger to life and property and that licensees' personnel are aware of and follow up on the information and steps needed to perform licensed activities in a safe manner. The reports and recordkeeping requirements allow NRC to determine whether to take actions, such as to conduct inspections or to alert other licensees to prevent similar events that may have generic implications.

3. Reduction of Burden Through Information Technology

The NRC has issued Guidance for Electronic Submissions to the NRC which provides direction for the electronic transmission and submittal of documents to the NRC. Electronic transmission and submittal of documents can be accomplished via the following avenues: the Electronic Information Exchange (EIE) process, which is available from the NRC's "Electronic Submittals" Web page, by Optical Storage Media (OSM) (e.g. CD-ROM, DVD), or by e-mail. It is estimated that approximately 25% of the potential responses are filed electronically.

4. Effort to Identify Duplication and Use Similar Information

No sources of similar information are available. There is no duplication of requirements.

5. Effort to Reduce Small Business Burden

Not applicable.

6. Consequences to Federal Program or Policy Activities if the Collection is Not Conducted or is Conducted Less Frequently

The conduct of decommissioning activities and the collection of information concerning them at the required frequency is essential to provide the assurance of protection for the health and safety of the workers and the public.

7. Circumstances Which Justify Variation from OMB Guidelines

None.

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements for this clearance package was published in the *Federal Register* on June 13, 2024 (89 FR 50381). Additionally, NRC staff contacted eight stakeholders via email. The stakeholders included operating reactor licensees, licensed and under construction non-power production and utilization facilities, as well as power reactors being decommissioned and industry representatives from Constellation Energy, Holtec International, Southern Nuclear Operating Co., Inc, SHINE Technologies, Abilene Christian University, Oregon State University, Texas A & M University, and Energy Solutions.

No responses or comments were received from the FRN publication or the staff's direct solicitation of comments related to this section.

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of Information

Confidential and proprietary information is protected in accordance with NRC regulations at 10 CFR 9.17(a) and 10 CFR 2.390(b).

11. Justification for Sensitive Questions

This regulation does not request sensitive information.

12. Estimated Industry Burden and Burden Hour Cost

The total estimated cost for information collection requirements in this section is estimated to be 12,786 hours at a cost of \$3,835,800 (12,786 hours x \$300/hr).

| Total Burden and Responses Section 3 | | |
|--------------------------------------|--------|-----------|
| | Hours | Responses |
| Reporting | 4,167 | 55 |
| Recordkeeping | 8,619 | 169 |
| Third Party Disclosure | 0 | 0 |
| TOTAL | 12,786 | 224 |

Detailed burden estimates are included in the supplemental burden spreadsheet titled, "Table 1 - Summary of Supporting Statements."

The \$300 hourly rate used in the burden estimates is based on the Nuclear Regulatory Commission's fee for hourly rates as noted in 10 CFR 170.20 "Average cost per professional staff-hour." For more information on the basis of this rate, see the Revision of Fee Schedules; Fee Recovery for Fiscal Year 2023 (88 FR 39120, June 15, 2023).

13. Estimate of Other Additional Costs

The quantity of records to be maintained is roughly proportional to the recordkeeping burden and therefore can be used to calculate approximate records storage costs. Based on the number of pages maintained for a typical clearance, the records storage cost has been determined to be equal to .0004 times the recordkeeping burden cost. Therefore, the storage cost for this clearance is estimated to be \$1,034 (8,619 recordkeeping hours x 0.0004 x \$300).

14. Estimated Annualized Cost to the Federal Government

The staff has developed estimates of annualized costs to the Federal Government related to the conduct of this collection of information. These estimates are based on staff experience and subject matter expertise and include the burden needed to review, analyze, and process the collected information and any relevant operational expenses.

The annualized estimated cost to the government is \$457,800 (1,526 staff hours x \$300) as shown on the attached Summary Table.

15. Reasons for Changes in Burden or Cost

The burden and number of responses have changed as described in the tables below:

Burden change

| | 2021 estimates | Current submission | Change |
|---------------|----------------|--------------------|--------|
| Reporting | 4,045 | 4,167 | +122 |
| Recordkeeping | 10,877 | 8,619 | -2,258 |
| Total | 14,922 | 12,786 | -2,136 |

Change in Responses

| | 2021 estimates | Current submission | Change |
|---------------|----------------|--------------------|--------|
| Reporting | 95 | 55 | -40 |
| Recordkeeping | 149 | 169 | +20 |
| Total | 244 | 224 | -20 |

The estimated annual burden for this section will decrease from 14,922 hours and 244 responses to 12,786 hours and 224 responses, a decrease of 2,136 hours and 20 responses.

External programs are contributing to the progression of advanced reactor designs, causing an influx of applications during this clearance cycle. Due to these programs, ongoing robust pre-application engagements (i.e., topical report reviews), and meetings, discussions and continuous contact with prospective stakeholders, the agency is expected to receive applications for, construction permits (CP), early site permits (ESP), standard design approvals (SDAs) and certifications, manufacturing license (MLs), combined licensees (COLs), for commercial nuclear power reactors, as well as operating licenses (OLs) related to the licensing processes that apply to light-water reactors (LWR) and non-light water reactors (NLWR). The effects if any of these projected applications on the requirements in this section is captured below.

Additionally, digitized electronic recordkeeping and advancement in technology has impacted the burden to maintain records. Staff has recognized these advancements and applied burden accordingly. The effects if any are captured below.

Section 50.33(k) expected submissions of new applications and increase of 1.66 respondents and 332 total burden hours.

Section 50.75 decreased 0.5 respondents and 210 burden hours; this reduction reflects the reports are submitted biennial.

Section 50.75 recordkeeping reduced 22 hours per recordkeeper, due to advancement in technology as stated above and 2,258 hours overall for the requirement.

16. Publication for Statistical Use

The information being collected is not expected to be published for statistical use.

17. Reason for Not Displaying the Expiration Date

The recordkeeping and reporting requirements for this information collection are associated with regulations and are not submitted on instruments such as forms or surveys. For this reason, there are no data instruments on which to display an OMB expiration date. Further, amending the regulatory text of the CFR to display information that, in an annual publication, could become obsolete would be unduly burdensome and too difficult to keep current.

18. Exceptions to the Certification Statement

None.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Not applicable.

Appendix A – Description Requirements

Decommissioning

10 CFR 50.33 Contents of applications; general information.

10 CFR 50.33(k)(1) requires that an application for an operating license include information on how reasonable assurance will be provided that funds will be available to decommission the facility.

10 CFR 50.75 Reporting and recordkeeping for decommissioning planning.

10 CFR 50.75 establishes detailed information on what the NRC will accept as reasonable assurance that decommissioning funds will be available for the decommissioning process.

10 CFR 50.75(b) requires each power reactor applicant for, or holder of, an operating license, and each applicant for a combined license under Subpart C of 10 CFR Part 52, to submit a decommissioning report, as required by 10 CFR 50.33(k)(1), containing a cost estimate for decommissioning and a certification that financial assurance for decommissioning will be provided and adjusted annually. As part of the certification, a copy of the financial instrument must be submitted to NRC.

10 CFR 50.75(d)(1) requires each research and test reactors applicant for, or holder of, an operating license to submit a decommissioning report as required by 10 CFR 50.33(k)(1)(ii) and (iii) containing a cost estimate for decommissioning, an indication of the method(s) to be used to provide decommissioning funds, and a description of the means of adjusting the cost estimate over the life of the facility.

10 CFR 50.75(e) specifies that a trust to ensure funds are available for decommissioning must be an external trust fund held in the United States, established under a written agreement and with an entity that is a State or Federal government agency or an entity whose operations are regulated by a State or Federal agency.

10 CFR 50.75(e)(1)(i) requires that the trust, escrow account, government fund, or other type of agreement shall be established in writing and maintained at all times in the United States with an entity that is an appropriate State or government agency or an entity whose operations in which the prepayment deposit is managed or regulated and examined by a Federal or State agency.

10 CFR 50.75(e)(1)(ii) requires the trust, escrow account, government fund, or other type of agreement shall be established in writing and maintained at all times in the United States with an entity that is an appropriate State or Federal governmental agency, or an entity whose operations in which the external sinking fund is managed and examined by a Federal or State agency.

10 CFR 50.75(f)(1) requires that each power reactor licensee shall report, on a calendar-year basis, to the NRC by March 31, 1999, and at least once every 2 years thereafter on the status of its decommissioning funding for each reactor or part of a reactor that it owns. The information in this report must include, at a minimum: the amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75(b) and (c); the amount accumulated to the end of the calendar year preceding the date of the report; a schedule of the annual amounts remaining to be collected; the assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections; any contracts upon which the licensee is relying; any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report; and any material changes to trust agreements. Any licensee for a plant that is within 5 years of the projected permanent termination of its operation, or where conditions have changed such that it has or will close within 5 years (before the end of its licensed life), or for plants involved in mergers or acquisitions shall submit this report annually.

10 CFR 50.75(f)(3) requires that each power reactor licensee submit, at or about 5 years prior to the projected permanent termination of operations, a preliminary decommissioning cost estimate which includes an up-to-date assessment of the major factors that could affect the cost to decommission.

10 CFR 50.75(f)(4) requires that each research and test reactor licensee submit, at or about 2 years prior to the projected end of operations, a preliminary decommissioning plan containing a cost estimate for decommissioning and an up-to-date assessment of the major factors that could affect planning for decommissioning.

10 CFR 50.75(f)(5) requires, if necessary, the cost estimate for power and research and test reactors to include plans for adjusting funding levels to demonstrate that a reasonable level of assurance will be provided that funds will be available when needed to cover the cost of decommissioning.

10 CFR 50.75(g) requires each licensee to keep records of information important to safe and effective decommissioning until the license is terminated (by the NRC); (g)(1) this information consists of records of spills; (g)(2) as-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used or stored, and of locations of possible inaccessible contamination; (g)(3) records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning; and of the funding method used.

10 CFR 50.75(h)(1), requires licensees that are not "electric utilities" as defined in 10 CFR 50.2 that use prepayment or an external sinking fund to provide financial assurance to include in the terms of the arrangements governing the trust, escrow account, or government fund, used to segregate and manage the funds, the following:

10 CFR 50.75(h)(1)(i) requires the trustee, manager, investment advisor, or other person directing investment of the funds: (A) is prohibited from investing the funds in securities or other obligations of the licensee or any other owner or operator of the power reactor of their affiliates, subsidiaries, successors or assigns or in a mutual fund in which at least 50 percent of the fund is invested in the securities of a licensee or parent company whose subsidiary is an owner of a foreign or domestic nuclear power plant. However,

the funds may be invested in securities tied to market indices or other non-nuclear sector collective, commingled, or mutual funds, provided that this subsection shall not operate in such a way as to require the sale or transfer either in whole or in part, or other disposition of any such prohibited investment that was made before December 24, 2002, provided further that these restrictions do not apply to 10 percent or less of their trust assets in securities of any other entity owning one or more nuclear power plants.

10 CFR 50.75(h)(1)(ii) requires that the licensee, its affiliates, and its subsidiaries are prohibited from being engaged as investment manager for the funds or from giving day-to-day management direction of the funds' investments or direction on individual investments by the funds, except in the case of passive fund management of trust funds where management is limited to investments tracking market indices.

10 CFR 50.75(h)(1)(iii) requires the trust, escrow account, government fund, or other account used to segregate and manage the funds may not be amended in any material respect without written notification to the NRC Director, Office of Nuclear Reactor Regulation (NRR), or the NRC Director, Office of Nuclear Material Safety and Safeguards (NMSS), as applicable, at least 30 working days before the proposed effective date of the amendment. The licensee shall provide the text of the proposed amendment and a statement of the reason for the proposed amendment. The trust, escrow account, government fund, or other account may not be amended if the person responsible for managing the trust, escrow account, government fund, or other account receives written notice of objection from the Director, NRR, or the Director, NMSS, as applicable, within the notice period.

10 CFR 50.75(h)(1)(iv) requires that, except for withdrawals being made under 10 CFR 50.82(a)(8), no disbursement or payment may be made from the trust, escrow account, government fund, or other account used to segregate and manage the funds until written notice of the intention to make a disbursement or payment has been given to the Director, NRR, or the Director, NMSS, as applicable, at least 30 working days before the date of the intended disbursement or payment. The disbursement or payment from the trust, escrow account, Government fund or other account may be made following the 30-working day notice period if the person responsible for managing the trust, account, or Government fund, does not receive written notice of objection from the Director, NRR, or the Director, NMSS, as applicable, within the notice period. Disbursements or payments from the trust, escrow account, government fund, or other account used to segregate and manage the funds, other than for payment of ordinary administrative costs (including taxes) and other incidental expenses of the fund (including legal, accounting, actuarial, and trustee expenses) in connection with the operation of the fund, are restricted to decommissioning expenses or transfer to another financial assurance method acceptable under paragraph (e) of this section until final decommissioning has been completed. After decommissioning has begun and withdrawals from the decommissioning fund are made under 10 CFR 50.82(a)(8), no further notification need be made to the NRC.

10 CFR 50.75(h)(2) requires licensees that are "electric utilities" under 10 CFR 50.2 that use prepayment or an external sinking fund to provide financial assurance shall provide in the terms of the trust, escrow account, government fund, or other account used to segregate and manage funds that, except for withdrawals being made under 10 CFR 50.82(a)(8), no disbursement or payment may be made from the trust, escrow account, government fund, or other account used to segregate and manage the funds until written

notice of the intention to make a disbursement or payment has been given the Director, NRR, or the Director, NMSS, as applicable, at least 30 working days before the date of the intended disbursement or payment. The disbursement or payment from the trust, escrow account, government fund or other account may be made following the 30-working day notice period if the person responsible for managing the trust, escrow account, government fund, or other account does not receive written notice of objection from the Director, NRR or the Director, NMSS, as applicable, within the notice period. Disbursements or payments from the trust, escrow account, government fund, or other account used to segregate and manage the funds, other than for payment of ordinary administrative costs and other incidental expenses of the fund in connection with the operation of the fund, are restricted to decommissioning expenses or transfer to another financial assurance method acceptable under paragraph (e) of this section until final decommissioning has been completed. After decommissioning has begun and withdrawals from the decommissioning fund are made under 10 CFR 50.82(a)(8), no further notification need be made to the NRC.

10 CFR 50.75(h)(3) requires that a licensee that is not an "electric utility" under 10 CFR 50.2 and using a surety method, insurance, or other guarantee method to provide financial assurance shall provide that the trust established for decommissioning costs to which the surety or insurance is payable contains in its terms the requirements in paragraphs 10 CFR 50(h)(1)(i), (ii), (iii), and (iv) of this section.

10 CFR 50.80 Transfer of licenses.

10 CFR 50.80(b), transfer of licenses, shall include as much of the information described in 10 CFR 50.33 and 10 CFR 50.34 with respect to the identity and technical and financial qualifications of the proposed transferee as would be required by those sections if the application were for an initial license. This would include information on decommissioning funding.

10 CFR 50.82 Termination of license.

10 CFR 50.82 defines the decommissioning process and information collection requirements for power and research and test reactors. Specifically:

10 CFR 50.82(a)(1)(i) and (ii) requires that a power reactor licensee submit written certification to the NRC within 30 days after determination to permanently cease operation, in accordance with 10 CFR 50.4(b)(8), and to submit a subsequent written certification once fuel has been permanently removed from the reactor vessel, in accordance with 10 CFR 50.4(b)(9).

10 CFR 50.82(a)(4)(i) requires that a power reactor licensee submit prior to, or within 2 years following permanent cessation of operations, a post-shutdown decommissioning activities report (PSDAR). The PSDAR is sent to the NRC with a copy to the affected State(s) and provides a description of the planned decommissioning activities along with a schedule for their accomplishment, an estimate of expected costs, and a discussion of whether environmental impacts associated with site-specific decommissioning activities will be bounded by appropriate, previously issued documents.

10 CFR 50.82(a)(7) requires that a nuclear power licensee notify the NRC in writing and send a copy to the affected State(s), before performing any decommissioning activity inconsistent with, or making any significant schedule change from, those actions and schedules described in the PSDAR, including changes that significantly increase the decommissioning cost. This notification is necessary to keep the NRC informed of changes in the licensee's planned activities or a significant increase in decommissioning costs.

10 CFR 50.82(a)(8)(ii) requires that a nuclear power licensee submit to the NRC a site-specific decommissioning cost estimate prior to using any funding in excess of the amounts specified in this section. This submittal is necessary to ensure that the licensee will have sufficient funding for future decommissioning actions.

10 CFR 50.82(a)(8)(iii) requires that within 2 years following permanent cessation of operations, if not already submitted, a nuclear power licensee shall submit a site-specific decommissioning cost estimate.

10 CFR 50.82(a)(8)(iv) requires licensees to provide a means of adjusting cost estimates and funding levels during decommissioning delays or periods of plant storage.

10 CFR 50.82(a)(8)(v) requires licensees to annually submit to the NRC, by March 31, a financial assurance status report. The report must include: (A) The amount spent on decommissioning, both cumulative and over the previous calendar year, the remaining balance of any decommissioning funds, and the amount provided by other financial assurance methods being relied upon; (B) An estimate of the costs to complete decommissioning, reflecting any difference between actual and estimated costs for work performed during the year, and the decommissioning criteria upon which the estimate is based; (C) Any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report; and (D) Any material changes to trust agreements or financial assurance contracts.

10 CFR 50.82(a)(8)(vi) requires that, if the sum of the balance of any remaining decommissioning funds, plus earnings on such funds calculated at not greater than a 2 percent real rate of return, together with the amount provided by other financial assurance methods being relied upon, does not cover the estimated cost to complete decommissioning, the financial assurance status report must include additional financial assurance to cover the estimated cost of completion.

10 CFR 50.82(a)(8)(vii) requires that after submitting its site-specific decommissioning cost estimate required by 10 CFR 50(a)(4)(i), the licensee must annually submit to the NRC, by March 31, a report on the status of its funding for managing irradiated fuel. The report must include the following information, current through the end of the previous calendar year: (A) The amount of funds accumulated to cover the cost of managing the irradiated fuel; (B) The projected cost of managing irradiated fuel until title to the fuel and possession of the fuel is transferred to the Secretary of Energy; and (C) If the funds accumulated do not cover the projected cost, a plan to obtain additional funds to cover the cost.

10 CFR 50.82(a)(9) requires that a power reactor licensee submit an application for termination of license. The application must be accompanied or preceded by a license termination plan and be submitted at least 2 years before termination of the license.

10 CFR 50.82(a)(9)(ii)(A)-(H) prescribes the content of the license termination plan. Items (A), (C), and (D) require the licensee to evaluate the site for radiological hazards, perform suitable decontamination (remediation) activities, and perform a suitable final radiation survey after site decontamination. Item (B) requires the licensee to identify any residual dismantlement activity that remains at the time of license termination plan submittal. Item (E) requires the licensee to identify the end use of the site if a restricted release is sought by the licensee. Item (F) requires the licensee to provide an updated site-specific estimate of remaining decommissioning costs. Item (G) requires the licensee to submit a supplement to the environmental report that describes any new or significant environmental change associated with the licensee's proposed termination activities. Item (H) requires identification of parts, if any, of the facility site released before approval of the license termination plan.

10 CFR 50.82(b)(1) requires that a non-power reactor licensee that permanently ceases operations must make application for license termination within 2 years following permanent cessation of operations, and in no case later than 1 year prior to expiration of the operating license. Each application must be accompanied or preceded by a proposed decommissioning plan. The contents of the decommissioning plan are specified in 10 CFR 50.82(b)(4).

10 CFR 50.82(b)(2) states for decommissioning plans in which the major dismantlement activities are delayed by first placing the facility in storage, planning for these delayed activities may be less detailed. Updated detailed plans must be submitted and approved prior to the start of these activities.

10 CFR 50.82(b)(4) prescribes the content of decommissioning plans for non-power reactors. This includes (i) the choice of the alternative for decommissioning with a description of activities involved; (ii) a description of the controls and limits on procedures and equipment to protect occupational and public health and safety; (iii) a description of the planned final radiation survey; (iv) an updated cost estimate for the chosen alternative 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; and (v) a description of technical specifications, quality assurance provisions and physical security plan provisions in place during decommissioning.