

DRAFT OMB SUPPORTING STATEMENT
FOR
10 CFR PART 54
REQUIREMENTS FOR RENEWAL OF OPERATING LICENSES FOR
NUCLEAR POWER PLANTS
3150-0155

EXTENSION

DESCRIPTION OF THE INFORMATION COLLECTION

Title 10 of the *Code of Federal Regulations* (10 CFR) Part 54 establishes license renewal requirements for operating nuclear power plants. Collection requirements included in 10 CFR Part 54 are related to the license renewal application submittal and recordkeeping. In the license renewal application submittal the applicant: (1) identifies the appropriate systems, structures and components (SSCs) that need to be managed for aging degradation, and (2) proposes additional actions needed to maintain the functionality of the SSCs in the period of extended operation. The current licensing basis (CLB) of a facility is modified to include programs and activities related to the aging management of SSCs through updates to the updated final safety analysis report (UFSAR) and additional requirements added as part of the renewed operating license.

Applicants for renewal must perform an integrated plant assessment in which SSCs within the scope of license renewal are identified and screened to determine which SSCs require actions to manage the detrimental effects of age-related degradation. A license renewal applicant must submit with its application an UFSAR supplement which describes the aging management programs to be implemented and inspection and testing activities to be completed before and during the period of extended operation.

Renewed operating licenses routinely contain a reporting requirement for the licensee to notify NRC in writing when the inspection and testing activities are completed. The only licensees subject to this requirement are those that: (a) have renewed licenses prior to the clearance period or may receive a renewed license during the clearance period, and (b) will complete implementation of the inspection activities and notify NRC accordingly.

The NRC staff anticipates up to six (6) applications during the upcoming clearance period (November 2018 – October 2021), will be submitted under 10 CFR Part 54. Currently there are 52 licensees or recordkeepers maintaining 86 renewed licenses.

A. JUSTIFICATION

1. Need for and Practical Utility of the Collection of Information

Part 54 of 10 CFR establishes license renewal requirements for operating nuclear power plants and describes the information that licensees must submit to the NRC when applying for a license renewal. The application must contain technical information regarding how the licensee will manage the detrimental effects of age-related degradation for certain plant SSCs so as to continue the plant's safe operation during the renewal term. The NRC needs this information

to determine whether the licensee's actions will be effective in assuring the plant's continued safe operation.

The letter documenting the completion of inspection and testing activities required to be submitted by each renewed license serves as notification to the NRC that the licensee has completed the inspection and program implementation activities described in the UFSAR supplement. The NRC needs this notification so as to verify through inspection the implementation of these activities.

Holders of renewed licenses must retain in an auditable and retrievable form, for the term of the renewed operating license, all information and documentation required to document compliance with 10 CFR Part 54.

Details of these regulations can be found at the end of this supporting statement in "Description of Requirements."

2. Agency Use of the Information

The NRC will use the information submitted with the license renewal application to determine whether continued operation of nuclear power plants during their renewal terms will provide reasonable assurance of the adequate protection of public health and safety and the common defense and security. License renewal applicants and holders of renewed nuclear power plant operating licenses will use the information as a basis for establishing and maintaining aging management programs. Retained records will be used by the licensee and the NRC during inspections to provide the technical bases for continued safe operation of the plant.

3. Reduction of Burden Through Information Technology

There are no legal obstacles to reducing the burden associated with this information collection. The NRC encourages respondents to use information technology when it would be beneficial to them. 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), by facsimile or by e-mail. It is estimated that approximately 75 percent of the potential responses, including license renewal applications and amendments, 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

An applicant is only required to report the information if it seeks to apply for license renewal. The frequency of the submission (prior to the end of the 40-year license) cannot be decreased. This frequency is necessary to ensure that important systems, structures and components would continue to perform their intended function during the 20-year period of extended operation. Lack of collection of information will result in the inability to complete the license renewal process, assuring the plant's continued safe operation.

The records generated as part of this information collection are made available for the NRC's inspection program for license renewal. The inspections sample the results used by the licensee to identify those structures and components within the scope of license renewal, aging management programs, and design analysis changes. If the information collection is not conducted in accordance with the recordkeeping requirements, the risk of insufficient aging management programs that are not current to assure maintenance of the licensing basis during the period of extended operation would increase.

7. Circumstances That Justify Variation from OMB Guidelines

There are two 10 CFR Part 54 information collection requirements which vary from OMB guidelines:

- (1) Per 10 CFR 54.13(b), within two working days licensees must report to the NRC information having a significant implication for public health and safety or the common defense and security. This reporting period is necessary so that NRC is promptly informed on such matters. However, after renewing the license of 90 units at 56 sites, the NRC has not received a response to this information collection requirement and, therefore, estimates that future responses, if any, will be reported infrequently.
- (2) Per 10 CFR 54.37, a licensee must keep records throughout the term of a renewed license. This retention period is necessary to make sure data are available for establishing equipment aging trends for managing the detrimental effects of aging on the functionality of certain SSCs, and to maintain an acceptable level of public health and safety.

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements for this clearance package has been published in the *Federal Register*.

9. Payment of 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

Not applicable.

12. Estimated Industry Burden and Burden Hour Cost

During the clearance period, respondents will incur burdens for submitting reports and for recordkeeping. NRC estimates that the paperwork burden may vary widely among nuclear power plant licensees. All nuclear plants are somewhat different and the programs employed by individual plants, while similar, are not identical. NRC's assumptions, methodology, and results for estimating the paperwork burdens follow.

Reporting Burden

There are two reporting burdens:

- (1) The first reporting burden covers all licensee efforts associated with preparing a license renewal application and submitting amendments to the application during the review process.

The NRC estimates that the burden for preparing, submitting, and amending a licensee renewal application is 81,150. This figure is based on continued interaction with stakeholders and information received from NRC's consultations with licensees during the prior renewal period. The preparation of the application is estimated to require 81,150 hours of total burden with the review process requiring an additional 1,500 hours of burden to submit an amendment, required under 10 CFR 54.21(b), to identify any changes to the facility's current licensing basis that materially affect the application, each year during the review process, and at least three months before the scheduled completion of NRC's review.

To calculate the annualized reporting burden, NRC determined which license renewal application responses would incur burden during the clearance period. NRC bases license renewal planning on the receipt of two new applications per fiscal year during the clearance period (November 2018 through October 2021). In accordance with Section 54.21(b) two new applications will likely mean that the licensee will submit two amendments per application (2 amendments x 1500 hours = 3,000), which may result in four responses totaling 6,000 hours.

The total annual burden during the clearance period is therefore 168,320 hours (81,150 hours per application x 2 applications annually plus 6,000 hours for amendments + 20 hours for completion letters). See Table 1.

- (2) Depending on the wording of the license conditions contained in the renewed operating license, the NRC may also require licensees to prepare and submit inspection and testing completion review letters as required by each renewed license. These respondents are different from those preparing and submitting license renewal applications because NRC has already granted their renewed licenses. In certain situations, NRC allows licensees to submit one application for renewing the operating licenses of several reactor units. However, NRC issues a separate renewed operating license to each reactor unit and each such license contains the requirement to submit a letter documenting the completion of inspection and testing activities. To estimate the number of these letters that it will receive during the clearance period, NRC estimates that a licensee will submit the required letter within one year of entering a unit's period of extended operation. The NRC determined that six (6) plants will enter the period of extended operation during the clearance period of November 2018 through October 2021. These plants are North Anna 2, McGuire 1, Joseph M. Farley 2, Salem 2, and Sequoyah 1&2. However, the NRC will receive five (5) responses as completion letters during the clearance period since one record-holder is assumed to address both Sequoyah units. Annualizing these responses over the clearance period results in approximately two (2) responses per year. NRC estimates that each letter will incur a burden of 10 hours resulting in 20 hours/year (10 hours x 2 responses).

A complete summary of the calculations for reporting burden and cost is provided in Table 1.

Recordkeeping Burden

The annual recordkeeping burden after the issuance of the renewed license covers all licensee efforts associated with retaining, as required by 10 CFR 54.37, information to document compliance with 10 CFR Part 54. This burden begins when the NRC grants a renewed license and continues throughout the period of extended operation until the renewed license expires. During the clearance period, the total number of recordkeepers per year will increase as NRC receives more applications and issues more renewed licenses. To estimate the number of recordkeepers, the NRC considered each reactor site with renewed operating license(s). Licensees typically submit combined license renewal applications for multi-unit sites so the NRC issues the renewed license for each unit at the same time. Also, the NRC estimates that the recordkeeping burden for a multi-unit site is approximately equivalent to the burden for a single unit site.

Next, the NRC considered the issuance dates for those sites that have already received renewed licenses, the projected issuance dates for license renewals currently under review, and the renewal applications expected to be submitted based on licensee intent letters. Through this analysis, NRC estimates that there are currently 52 recordkeepers. During the clearance period, the NRC could potentially grant renewed licenses to up to 4 applicants which will add

4 recordkeepers. Also during the clearance period the NRC expects up to 6 applications, therefore a potential to add another 6 recordkeepers. The number of recordkeepers is assumed to increase by approximately 3 each year, until the final year. In year 1, there will be an estimated 55 recordkeepers, in year 2 there will be an estimated 58 recordkeepers, and in year 3 there will be an estimated 62 recordkeepers, for an average of 58 recordkeepers

Based on the outside consultations conducted during the 2015 renewal, licensees generally agreed with NRC's recordkeeping burden estimate of 1,000 hours per year which results in 58,000 hours (58 recordkeepers/year x 1000 hours). A summary is in Table 2.

Total burden

The total burden for the Part 54 information collections during the clearance period is 226,320 hours (168,320 reporting hours + 58,000 recordkeeping hours) at a cost of \$59.5M (226,320 hours x \$263/hr).

The \$263 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 2017 (82 FR 30682; June 30, 2017).

13. Estimate of Other Additional Costs

The quantity of records to be maintained is roughly proportional to the recordkeeping burden. Based on the number of pages maintained for a typical clearance period, the records storage cost has been determined to be equal to 0.0004 times the recordkeeping burden cost. Therefore, the storage cost for this clearance is estimated to be \$6,102 (58,000 hours x \$263/hour x 0.0004).

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 estimated annualized cost to the NRC for 10 CFR Part 54 information collections covers the review of information in each submitted license renewal application. Based on NRC's budget, each application review will cost the Federal government a total of approximately 17,613 hours. The NRC rate is \$263/hour. Therefore, the resulting cost per application is estimated to be \$4.6M

As described in Item 12 above, NRC expects to begin review of two license renewal applications per year during the clearance period. Therefore, the resultant estimated annualized cost to the Federal government is \$9.2M per year (\$4.6 /application x 2 applications/year).

15. Reasons for Changes in Burden or Cost

The overall burden for the Part 54 information collections increased from 220,340 hours to 226,320 hours, an increase of 5,980 hours. The change in burden is due to a reduction in the number of letters of completion and an increase in the number of recordkeepers, as additional renewed licenses are approved.

Reporting Burden

The reporting burden has decreased by 20 hours, from 168,340 to 168,320 because the number of anticipated completion letters has decreased from 4 letters annually to 2 letters annually during the clearance period. The reporting burden for license renewal applications remains the same since the effort required per application per year is unchanged at 84,150 hours reporting and the number of expected new applications is unchanged.

Recordkeeping Burden

Although the recordkeeping burden (1,000 hours per application) estimate did not change in this submission, the number of recordkeepers increased from the estimated 52 recordkeepers to an average of 58 recordkeepers, resulting in an increase of 6,000 hours of burden annually (from 52,000 hours to 58,000 hours). This increase is due to the completion of application reviews and the subsequent addition of recordkeepers upon issuance of renewed licenses.

In addition, the fee rate has decreased from \$272/hr to \$263/hr.

16. Publication for Statistical Use

This information will not 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

There are no exceptions.

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

Statistical methods are not used in this collection of information.

TABLE 1
ANNUAL REPORTING BURDEN

Section	Number of Respondents	Responses per Respondent	Total Responses	Burden per Response (Hours)	Total Annual Burden (Hours)	Cost at \$263/ hour (\$)
License Renewal Application (54.13, 54.15, 54.17, 54.19, 54.21, 54.22)	2	1	2	81,150	162,300	\$42,684,900
Amendments to Application	2	2	4	1,500	6,000	\$1,578,000
Completion Letter	2	1	2	10	20	\$5,260
Total	6	--	8	--	168,320	\$44,268,160

TABLE 2
ANNUAL RECORDKEEPING REQUIREMENTS

Section	Number of Recordkeepers	Burden per Recordkeeper (Hours)	Total Annual Burden (Hours)	Cost at \$263/ hour (\$)
Retention of Records in an Auditable and Retrievable Form and UFSAR Updates (54.37)	58	1,000	58,000	\$15,254,000

TOTAL ANNUAL BURDEN / COST: 226,320 hours (168,320 hours reporting plus 58,000 hours recordkeeping) / \$59,522,160

TOTAL ANNUAL RESPONDENTS: 6

TOTAL ANNUAL RESPONSES: 66 (2 license renewal applications for 10 CFR Part 54 + 4 amendments + 2 completion letters + 58 recordkeepers)

DESCRIPTION OF INFORMATION COLLECTION REQUIREMENTS
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Section 54.13 states information completeness and accuracy requirements. Specifically, Paragraph (b) requires each applicant to notify the Commission of information identified by the applicant as having, for the regulated activity, significant implication for public health and safety or the common defense and security. Such notification must be made within two working days of identifying the information. The NRC needs this information so that it may take appropriate actions, as required, to protect the public's health and safety. Applicants will report this information as necessary to comply with the regulation.

Section 54.15 permits the NRC, in accordance with 10 CFR 50.12, to grant exemptions from 10 CFR Part 54 requirements. The Commission, upon application by any interested person or upon its own initiative, may grant the exemptions. The NRC requires the information so that it can determine whether an exemption is warranted.

Section 54.17 states requirements for renewal application filing:

Paragraph (a) requires the filing to be in accordance with Subpart A of 10 CFR Part 2 and 10 CFR 50.4 and 50.30. This section establishes the procedural aspects for the filing whereas 10 CFR 54.19, 54.21, 54.22 and 54.23 addresses information to be included in the application, as described below.

Paragraph (g) requires the license renewal applicant to agree in writing that it will not permit any individual access to Restricted Data or classified National Security Information until an investigation has been approved for such access under the provisions of 10 CFR Parts 25 and/or 95. This information is necessary to assist the Commission in determining that permitting such person's access to Restricted Data or classified National Security Information will not endanger the common defense and security. OMB Clearance Nos. 3150-0046, 3150-0050, 3206-0007, 3150-0026, 3150-0049, 3150-0051 cover information collection for 10 CFR Part 25, and OMB Clearance No. 3150-0047 covers information collection for 10 CFR Part 95. An applicant will report this information once per renewal application submission.

Section 54.19 states the general information required in the application:

Paragraph (a) requires license renewal applicants to provide the information specified in 10 CFR 50.33(a) through (e), (h), and (i); the application may incorporate this information by reference. The NRC needs this information to establish the continued validity, during the renewal term, of general information applicable during the original license. An applicant will report this information once per renewal application submission.

Paragraph (b) requires each renewal application to include conforming changes to the standard indemnity agreement in 10 CFR 140.92, Appendix B. This information is necessary to account for the expiration term of the proposed renewed license. An applicant will report this information once per renewal application submission.

Section 54.21 states requirements for the application's technical information:

Paragraph (a) requires an integrated plant assessment to identify and list those SSCs subject to an aging management review. The integrated plant assessment must describe and justify the methods used to identify those SSCs. The NRC needs this information to be able to conclude that additional aging management attention is directed to SSCs that require it because they are important and can undergo age-related degradation during the renewal term. The integrated plant assessment must also demonstrate the adequacy of actions taken or to be taken to manage the detrimental effects of aging. The NRC needs this information to be satisfied that the actions will be effective in assuring the continued safe operation of the plant. An applicant will report this information once per renewal application submission.

Paragraph (b) requires the application to contain CLB changes which occur during NRC review of the application. Each year following submittal of the license renewal application and at least three months before scheduled completion of the NRC review, the applicant must submit an amendment to the renewal application that identifies any change to the facility's CLB that materially affects the contents of the license renewal application, including the UFSAR supplement. The NRC needs this information to determine the acceptability of these changes from the pertinent safety standpoints. An applicant will report this information as necessary while NRC completes its review of the application.

Paragraph (c) requires the application to contain an evaluation of time-limited aging analyses (TLAAs) for SSCs. The applicant must list the TLAAs that conform to the definition in 10 CFR 54.3 and demonstrate that the analyses remain valid for the period of extended operation, the analyses have been projected to the end of the period of extended operation, or the effects of aging on the intended function(s) will be adequately managed for the period of extended operation. The NRC needs this information to determine whether those SSCs meet the requirements for license renewal. This section also requires a list of all plant-specific exemptions granted pursuant to 10 CFR 50.12 and in effect that are based on TLAAs as defined in 10 CFR 54.3. The applicant must provide an evaluation that justifies the continuation of these exemptions for the period of extended operation. The NRC needs this information to justify whether to continue these exemptions. An applicant will report this information once per renewal application submission.

Paragraph (d) requires the application to include an UFSAR supplement for the facility which must contain a summary description of the programs and activities for managing the effects of aging and the evaluation of TLAAs for the period of extended operation as determined by 10 CFR 54.21(a) and (c), respectively. The NRC needs this information to determine whether the licensee's actions for managing the effects of aging provide reasonable assurance that the facility's operations during the period of extended operation can be conducted without endangering public health and safety. An applicant will report this information once per renewal application submission.

Section 54.22 requires the application to include any technical specification changes or additions necessary to manage the effects of aging during the period of extended operation.

The justification for these changes or additions must also be contained in the application. The NRC needs this information to determine the acceptability of these changes from pertinent safety standpoints. An applicant will report this information once per renewal application submission.

Section 54.23 states the environmental information required in the application. This information is required to be a supplement to the environmental report that complies with 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," Subpart A, "National Environmental Policy Act – Regulations Implementing Section 102(2)." The NRC requires this information to determine the acceptability of the environmental consequences of the facility's continued operation during the renewal term. OMB Clearance No. 3150-0021 covers the burden for this environmental information collection. An applicant will report this information once per renewal application submission.

Section 54.33 states license renewal conditions. Specifically, Paragraph (c) requires each renewal license to include those conditions to protect the environment that were imposed pursuant to 10 CFR 50.36(b) and that are part of the facility's CLB at the time the NRC issues the renewed license. The NRC requires this information to protect the environment during the term of the renewed license. OMB Clearance No. 3150-0011 covers information collection for 10 CFR 50.36(b), and OMB Clearance No. 3150-0021 covers the burden for this environmental information collection as it relates to license renewal.

Section 54.37 states additional records and record keeping requirements:

Paragraph (a) requires holders of renewed licenses to retain in an auditable and retrievable form, for the term of the renewed operating license, all information and documentation required to document compliance with 10 CFR Part 54. The NRC needs access to this information for continuing effective regulatory oversight.

Paragraph (b) requires licensees, after the NRC issues the renewed license, to include in the UFSAR update required by 10 CFR 50.71(e), any newly identified SSCs that would have been subject to an aging management review or evaluation of time limited aging analyses (TLAAs) in accordance with 10 CFR 54.21. This UFSAR update must describe how the effects of aging will be managed such that the intended function(s) will be effectively maintained during the period of extended operation. The UFSAR update contains information on all of the changes made by the licensee to the plant since submission of the original UFSAR or, as appropriate, since submission of the last UFSAR. The NRC needs access to this information for continuing effective regulatory oversight. Renewed license holders will report this information as necessary to comply with the regulation.

GUIDANCE DOCUMENTS FOR INFORMATION COLLECTION REQUIREMENTS
CONTAINED IN

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Title	Accession number
NRC Regulatory Guide 1.188, Revision 1, "Standard Format and Content for Application to Renew Nuclear Power Plant Operating Licenses"	ML051920430
NUREG-1800, Revision 2, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants"	ML103490036
NUREG-1801, "Generic Aging Lessons Learned (GALL)"	ML103490041
NUREG-2192 Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plant (SRP-SLR)	ML17188A158
NUREG-2191 Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report Vol. 1 & 2	Vol. 1 ML17187A031 Vol. 2 ML17187A204