

FINAL SUPPORTING STATEMENT
FOR
10 CFR PART 51

"ENVIRONMENTAL PROTECTION REGULATIONS FOR DOMESTIC LICENSING AND
RELATED REGULATORY FUNCTIONS"

(3150-0021)

EXTENSION

DESCRIPTION OF THE INFORMATION COLLECTION

The Nuclear Regulatory Commission (NRC) regulations pertaining to environmental protection for domestic licensing and related regulatory functions are found in 10 CFR Part 51. The regulations require NRC licensees to submit certain information to the NRC if they seek exemptions from the requirements of the regulations or wish to have proprietary information withheld from public disclosure. In addition, each applicant or petitioner for rulemaking shall submit with its application one signed original environmental report.

The potential respondents to Part 51 information collections include:

- Applicants for a power reactor operating licenses;
- Applicants for research and test reactor operating licenses;
- Applicants for manufacturing licenses;
- Applicants for materials licenses;
- Applicants for early site permits or design certifications for power reactors;
- Power reactor licensees requesting to renew or amend their licenses or obtain an exemption;
- Applicants for a license amendment approving a license termination plan or decommissioning plan;
- Applicants for a license or license amendment to store spent fuel at a nuclear power reactor after expiration of the operating license for the nuclear power reactor;
- Non-power reactor licensees seeking to renew their licenses for research reactor power upgrades, or decommissioning requests; and
- Members of the public petitioning for rulemaking.

A detailed description of the requirements in Part 51 is included at the end of this supporting statement, along with a list of guidance documents issued by the NRC.

A. JUSTIFICATION

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

10 CFR Part 51 specifies the information to be provided by applicants and licensees so that the NRC can make determinations necessary to adhere to the policies, regulations, and public laws of the United States, which are interpreted and administered in accordance with the provisions set forth in the National Environmental Policy Act (NEPA) of 1969, as amended. NEPA directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United

States shall be interpreted and administered in accordance with the policies set forth in NEPA, and (2) all agencies of the Federal government shall comply with the procedures in Section 102(2) of NEPA except where compliance would be inconsistent with other statutory requirements. The regulations in Subpart A of 10 CFR Part 51 implement Section 102(2) of NEPA in a manner that is consistent with the NRC's domestic licensing and related regulatory authority under the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; the Uranium Mill Tailings Radiation Control Act of 1978; and the Commission's announced policy to voluntarily take account of the regulations of the Council of Environmental Quality published November 29, 1978 (43 FR 55978-56007), subject to certain conditions.

A detailed description of all information collection requirements contained in 10 CFR Part 51 is included at the end of this supporting statement ("Description of Information Collection Requirements Contained in 10 CFR Part 51.")

2. Agency Use of Information

The NRC will use the information to make determinations necessary to protect the environment and to adhere to the policies, regulations, and public laws of the United States that are to be interpreted and administered in accordance with the policies set forth in NEPA. As part of their application or request, applicants for licensing actions that require the NRC to conduct an environmental review under NEPA; submit information usually in the form of an environmental report (ER). The ER describes the proposed activity, the environment, and the impacts the applicant believes will occur. To comply with NEPA; the NRC uses the information in the ER along other information to conduct an independent environmental evaluation. As appropriate, the results of this evaluation are documented in an environmental impact statement (EIS) or environmental assessment (EA).

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 Submittals application, 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. The Electronic Submittals application allows electronic transmission of information to the NRC pertaining to licensing actions, associated hearings, and other regulatory matters. The application ensures information sent to the NRC via the Internet is secure and unaltered during transmission. It operates 24 hours a day, except when it is taken down for scheduled maintenance. The application serves as a secure portal respondents may use to transmit documents to the NRC.

It is estimated that approximately 99% of the responses will be filed electronically. (The exception to electronic submission is that a few members of public send their comments on agency environmental actions through the mail).

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

The potential respondents to Part 51 information collections, as described in "Description of The Information Collection", are typically large to medium sized commercial entities that are not small businesses. In this clearance period, the agency expects to receive applications for advanced nuclear reactors, including advanced micro-reactors, that may be submitted by small entities as defined in 10 CFR 2.810. These entities would likely be operating with the support of either large commercial enterprises or as a partner with some other Federal entity (e.g., Department of Defense, Department of Energy, Tennessee Valley Authority), or a major university. As a result, it is assumed that this information collection would not directly affect small businesses.

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

This information is submitted by applicants and licensees when they request that the NRC make a decision on an action. As part of its evaluation of the request, the agency is required to make a determination consistent with the provisions of NEPA. If this information were not submitted by the applicants and licensees, the NRC's environmental reviews would be more challenging, more time consuming, and require more fee-billable resources.

7. Circumstances That Justify Variation from OMB Guidelines

The NRC complies with OMB Guidelines. No variances are needed.

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 January 18, 2022, (87 FR 2641). Additionally, NRC staff contacted five stakeholders via email. The stakeholders were new, operating and fuel cycle facility owner licensee representatives and interested stakeholders from Cameco Resources, Dominion Energy, Global Nuclear Fuels-Americas, LLC, NuScale Power, LLC and TerraPower, LLC.

No responses or comments were received as a result of the FRN or the staff's direct solicitation of comments.

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of the Information

Confidential and proprietary information is protected in accordance with NRC regulations at 10 CFR 9.17(a) and 10 CFR 2.390(b). Information considered confidential or proprietary is not normally requested.

11. Justification for Sensitive Questions

As indicated in 10 CFR Part 51.16, Part 51 information collections may include proprietary information and it is anticipated that both applicants and staff will follow the procedures outlined in Part 51.16 and related sections in order to protect this information.

12. Estimated Industry Burden and Burden Hour Cost

The estimated annual reporting burden under Part 51 is shown on Table 1 (submitted as part of the supplemental document "Burden Spreadsheet for 10 CFR Part 51"), based on the average number of annual submissions that are anticipated for different types of licensees and applicants. The total estimated annual burden is 68,993 hours, at a cost of \$19,852,704 (68,933 hours x \$288/hr).

The following lists the number and type of applications that are anticipated to require environmental reviews during the 3-year clearance period (May 2022 to April 2025) and the total annual burden associated with each reporting requirement. The annual number of applications was calculated by dividing the number of applications anticipated over the three-year clearance period by 3. For example, 1 application over the 3-year period would equal 0.3 applications annually. Additionally, this approach assumes that the preparation and review burden are spread throughout the clearance period, regardless of when during that period the application is received.

- Eight exemption requests (2.6 annually) for operating reactors (13 hrs/yr);
- No requests to withhold proprietary information from disclosure for operating reactors;
- Fifteen license amendments (5 annually) for operating reactors (100 hrs/yr);
- No applications for a combined operating license (COL) for a new LLW nuclear reactor;
- No construction permit applications for a new LLW nuclear reactor;
- No amended design certification applications for a new LLW nuclear reactor;
- No early site permit applications for a new LLW nuclear reactor;
- One design certifications or design certification renewals (0.3 annually) for a new nuclear reactor (advanced nuclear reactor; 300 hrs/yr);
- Six applications (CP, ES or ESP) (2 annually) for a new advanced nuclear reactor (30,000 hrs/yr);
- Three applications (1 annually) for new non-power production or utilization facilities (NPUF) (600 hrs/yr);
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- Three license renewal applications (1 annually) for commercial power reactors (12,300 hrs/yr);
- Three applications (1 annually) for research and test reactors (60 hrs/yr);
- No manufacturing license applications for new nuclear reactors;
- Fifteen Nuclear Materials licensing actions (5 annually) (25,480 hrs/yr); and
- Three petitions (1 annually) for rulemaking (80 hrs/yr).

Part 51 does not include recordkeeping requirements.

The \$288 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 2021 (86 FR 32146, June 17, 2021).

13. Estimate of Other Additional Costs

There are no additional costs.

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 an evaluation of the time required to conduct the independent review of recent applicant ER submittals and produce an EIS or EA, as appropriate, and include the time needed to review, analyze, and process the collected information and any relevant operational expenses. The staff reviews vary in complexity (and in cost to the government) depending on the type of proposed action and the type of required NRC response (i.e., EA or EIS). Cost estimates are shown on Table 2 and are based on the anticipated number of annual submissions. The total annual NRC staff time to review submissions is estimated to be 65,173 hours at a cost of \$18,769,824 (65,173 hrs x \$288/hr).

15. Reasons for Change in Industry Burden or Cost

The overall annual burden is estimated to increase from 30,462 hours to 68,933 hours, an increase of 38,471 hours. The number of responses has also increased, from 16.7 responses in the previous submission to an estimated of 18.9 responses for this clearance period, an increase of 2.2 responses. The increase in burden is due to changes in the number of anticipated applications and adjustments to burden estimates for some requirements. For complex projects, the NRC staff assume that the time required for the industry to prepare the ER is similar to the time required for the NRC to review the submittal. As a result, in some cases changes in the industry burden estimates mirror those made in staff review time, as explained in Section 14 above.

The NRC staff anticipates an increase in the number of licensees submitting applications, renewals, and amendments that require environmental reports under Part 51. Estimates of the number of applications renewals, and amendments are based on information about projected submissions that has been provided by industry¹,

¹ See clearance 3150-0228, "Voluntary Reporting of Planned New Reactor Applications"

staff experience, and trends showing a reduction in submissions. Changes from the previous estimates for respondents/yr are reported for the following submission types over the three-year clearance period:

- Combined operating license applications for a new nuclear reactor (-0.3 respondents/yr for a total of zero expected respondents);
- Early site permit applications for a new nuclear reactor (-0.3 respondents/yr for a total of zero expected respondents);
- Design Certification applications (-1.0 respondents/yr);
- Applications for a new advanced nuclear reactor (COL, CP, and ESP) (+2 respondents/yr). This increase in respondents has increased burden by 30,000 hours annually;
- Applications for new non-power production or utilization facilities (NPUF) which is newly added (+1 respondents/yr);
- License Renewals applications for commercial power reactors (-0.3 respondents/yr);
- Post construction ER for research and test reactors (+0.7 respondents/yr); and
- Nuclear Materials licensing actions (+0.4 respondents/yr).

In Part 51 supporting statements for previous clearance periods, estimates for the preparation and review of the ER for combined licenses, construction permits, early site permits and design certifications included in Tables 1 and 2 have historically been for large light water (LLW) reactor types. In this clearance period, staff expect that applications for combined licenses, construction permit and design certifications will be for advanced reactors². Preparation and review time of the ER for advanced reactors is anticipated to be less than that typically associated with LLW reactors. As a result, staff has updated added a new line item for the preparation and review of ERs for COL, ESP and CP submission types for advanced reactors. This is not a new requirement; however, it allows staff to more accurately account for burden associated with submission of ERs for different reactor types. The following burden estimates were used in the new line items for advanced reactors:

- ER for Advanced Nuclear Reactor (all application types) under current regulations – 15,000 hours per response; and
- ER for new non-power production or utilization facility (NPUF) [CP or COL] – 600 hours per response.

Estimates for the preparation and review of Design Certification ERs for advanced reactors are assumed to be comparable to LLW and expected submittals were included under the previously existing “ER for Design Certification” submittal type.

As described in Section 14, changes in burden estimates for the federal government were made based on a thorough evaluation of the actual review time from recent, applicable, applications. For example, for LLW new reactor reviews, staff evaluated review time associated with 16 previously completed applications (CP, ESP, COL).

² For applications submitted under Part 51, staff use the definition of advanced reactors provided in the Nuclear Energy Innovation and Modernization Act of 2019

Estimates for advanced reactor reviews were developed based on scaling actuals from previous LLW reactor reviews and draft estimates currently under development for recently received advanced reactor applications. In addition, revisions to the review time of ERs received for material licenses were developed based on an evaluation of all recent material license reviews. Revisions to estimates for design certifications and manufacturing license reviews were also informed by previous reviews and based on staff expertise.

To determine the impacts to the burden estimate for industry, the NRC staff assumed the applicant's burden to prepare the ER for complex projects was the same as the time required for staff to review the ER and prepare the EA or EIS. As a result, changes in some industry burden estimates mirror those made in staff review time. These data-based revisions and assumptions are consistent with the insights provided by technical and project management staff based on years of review experience and interaction with industry.

Some updated estimates are for ER for submission types which are not expected during the clearance period. This includes all applications for new LLW reactor types (CP, ESP and COL) and for manufacturing licenses, where no burden estimate was previously reported. Since no applications are expected, the preparation and review estimates do not result in an increase in expected burden or cost.

For complex submissions, the applicant's burden to prepare the ER was assumed to be the same as the time required for staff to review the ER and prepare the EA or EIS.

Following is a summary of the changes in industry burden estimates in this renewal:

- ER for Combined License – burden increased from 10,300 hours per response to 28,000 hours per response, an increase of 17,700 hours. However, because no respondents are anticipated during the clearance period, this did not contribute to the overall increase in burden for the information collection;
- ER for Construction Permit – burden increased from 10,400 hours per response to 20,000 hours per response, an increase of 9,600 hours. However, because no respondents are anticipated for this requirement during the clearance period, this did not contribute to the overall increase in burden for the information collection;
- ER for Early Site Permit – burden increased from 11,400 hours per response to 25,000 hours per response, an increase of 13,600 hours. However, because no respondents are anticipated during the clearance period, this did not contribute to the overall increase in burden for the information collection;
- ER for Design Certification – burden increased from 60 hours per response to 1,000 hours per response, an increase of 940 hours. Although this requirement decreased by 1 respondent, there was an overall increase of 222 hours for this requirement, based on the increase in the estimated burden per response;
- Specific requirements for applicant's ER for Manufacturing License – This requirement did not previously have a burden estimate. This was corrected,

and a burden estimate of 4,000 hours per response was estimated, although no responses are anticipated; and

- Specific requirements for applicant's ER-Materials License – burden increased from 1,668 hours per response to 5,096 hours per response, an increase of 3,428 hours per response. Due to the change in the estimated burden per response, the burden for this requirement increased by 17,807 hours.

These adjustments in burden estimates, combined with the increase in the number of responses led to the overall increase in burden for the collection.

Lastly, the fee rate has changed from \$275/hr. to \$288/hr. The fee rate in 10 CFR 170.20 "Average cost per professional staff-hour" is updated annually.

16. Publication for Statistical Use

NRC does not publish information submitted in accordance with 10 CFR Part 51 for statistical use.

17. Reason for Not Displaying the Expiration Date

The 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. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Not applicable.

DESCRIPTION OF INFORMATION COLLECTION REQUIREMENTS
CONTAINED IN
10 CFR PART 51

"ENVIRONMENTAL PROTECTION REGULATIONS FOR DOMESTIC LICENSING AND
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Section 51.6 requires that persons who wish to seek an exemption to requirements in Part 51 submit an application for exemption. The Commission may also grant an exemption to requirements in Part 51 that it determines are authorized by law and in the public interest, even in the absence of a submittal. Exemption requests require discussion of whether the proposed activity will give rise to a significant adverse impact on the environment and the nature and extent of such impacts. 10 CFR 50.12 discusses the regulatory requirements necessary for specific exemption requests in the nuclear reactor context. Other regulations exist which discuss such requirements in other contexts, such as materials licensing.

Section 51.16(b) requires that persons who wish to have proprietary information withheld from public disclosure submit a request justifying the withholding pursuant to 10 CFR 2.390. 10 CFR 2.390(b) provides specific procedures that must be followed by anyone submitting a document to the NRC who seeks to have a document, or a portion of it, withheld from public disclosure because it contains trade secrets, privileged, or confidential commercial or financial information. The information required by 10 CFR 2.390 is needed by NRC to determine if the applicant/licensee's reasons are valid and if the information qualifies for exemption from disclosure. The NRC will promptly determine whether the justification supports a finding that the information is qualified to be tracked as proprietary. Should staff determine the request to be justified, disclosure is withheld. Should staff determine the request to be unjustified, the applicant/licensee is notified.

Section 51.41 allows the Commission to require an applicant for a permit, license, or other form of permission, or amendment to or renewal of a permit, license, or other form of permission, or a petitioner for rulemaking, to submit such information to the Commission as may be useful in aiding the Commission in complying with section 102(2) of NEPA.

Section 51.45(a) requires that certain persons submit environmental information and environmental reports (ERs), respectively. These persons may be applicants for initial or renewal permits, licenses, or other forms of permission; or petitioners for rulemakings. The ERs are submitted to NRC for its use in preparing an Environmental Assessment (EA) or Draft Environmental Impact Statement (DEIS). Subsequent to the receipt of public comments on the DEIS, NRC staff prepares a Final Environmental Impact Statement (FEIS). An Environmental Impact Statement (EIS) documents the staff's detailed consideration to the environmental impacts associated with construction, initial operation, or continued operation of a proposed facility or complex cases for decommissioning materials licensees. Environmental Impact Statements also document the staff's assessment of such impacts within the framework of a range of reasonable alternatives. Without the information provided in the ER, NRC cannot evaluate environmental impacts or prepare EAs, DEISs or FEISs as required by Section 102(2) of NEPA and 10 CFR Part 51.

Section 51.45(b) requires that the ER contain a description of the proposed action, a statement of its purposes, a description of the environment affected, and a discussion of the following considerations: (1) the impact of the proposed action on the environment, (2) any adverse environmental effects that cannot be avoided should the proposal be implemented, (3) alternatives to the proposed action, (4) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and (5) any irreversible and irretrievable commitments of resources that would be involved in the proposed action, if implemented.

Section 51.45(c) requires that the ER include an analysis that considers and balances the environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and alternatives available for reducing or avoiding adverse environmental effects. Except for ERs prepared for nuclear power reactors at the license renewal stage, the analysis in the ER should also include consideration of the economic, technical, and other benefits and costs of the proposed action and of alternatives. ERs prepared for nuclear power reactors at the license renewal stage need not include discussion of certain issues. These issues include the economic or technical benefits and costs of either the proposed action or alternatives except insofar as such benefits and costs are either essential for a determination regarding the inclusion of an alternative in the range of alternatives considered or relevant to mitigation. Other issues not related to the environmental effects of the proposed action and alternatives need not be included in ERs.

Section 51.49 (Environmental Report - Limited Work Authorization (LWA)) requires LWA applicant to submit an ER containing certain specified information. Paragraphs (a) and (b), which apply to applicants submitting a complete or two-part application, require the applicants to submit an environmental report describing activities conducted under the LWA, need to conduct those activities, description of environmental impacts, mitigation measures imposed, and a discussion of reasons for rejecting other mitigation measures that could further reduce environmental impacts. Paragraph (c) describes the contents of the environmental report when the request for the LWA is part of an ESP application. Paragraph (d) describes the contents of the environmental report when the LWA request is submitted by an ESP holder, and paragraph (e) establishes a limited exception from the information required by paragraphs (a) and (b) to be submitted in the environmental report. Paragraph (f) requires for all applications containing a LWA request, that the environmental report separately evaluate the environmental impacts and the proposed alternatives to the activities proposed to be conducted under the LWA. This information is needed by the NRC to prepare in parallel the Environmental Impact Statement (EIS) for the LWA activities and a supplemental EIS for the underlying construction permit or combined license, or a complete EIS at the LWA stage.

Section 51.50 (Environmental Report - Construction Permit Stage) requires that an applicant for a permit to construct a production or utilization facility, that is within the purview of Section 51.20, submit information specified in Sections 51.45, 51.51, and 51.52.

Section 51.51 (Uranium Fuel Cycle Environmental Data - Table S-3) requires that every ER prepared for the construction permit stage of a light-water-cooled nuclear power reactor, and submitted on or after September 4, 1979, shall take Table S-3, Table of Uranium Fuel Cycle Environmental Data, as the basis for evaluating the contribution of the environmental effects of uranium mining and milling, the production of uranium hexafluoride, isotopic enrichment, fuel fabrication, reprocessing of irradiated fuel, transportation of radioactive materials, and management of low-level wastes and high-level wastes related to uranium fuel cycle activities to the environmental costs of licensing the nuclear power reactor. Table S-3 shall be included

in the environmental report and may be supplemented by a discussion of the environmental significance of the data set forth in the table as weighed in the analysis for the proposed facility.

Section 51.52 (Environmental Effects of Transportation of Fuel and Waste - Table S-4) requires that every ER prepared for the construction permit stage of a light-water-cooled nuclear power reactor, submitted after February 4, 1975, shall contain a statement concerning transportation of fuel and radioactive wastes to and from the reactor. That statement shall indicate that the reactor and this transportation either meet all of the conditions in paragraph (a) of this section or meet all of the conditions in paragraph (b) of this section.

Section 51.53(a) (Post-Construction Environmental Reports) allows that an ER may incorporate, by reference, any information contained in a prior ER or supplement thereto that relates to the production or utilization facility or any information contained in a final environmental document previously prepared by the NRC staff that relates to the production or utilization facility.

Section 51.53(b) requires that an applicant submit supplemental information to the ER with the application for an operating license. The applicant only needs to discuss matters described in Sections 51.45, 51.51, and 51.52 to the extent that they differ from those described in the NRC's FEIS in connection with the construction permit. In addition, the ER is not required to include discussions of (1) the need for power, (2) alternative energy sources, (3) alternative sites for the facility, or (4) the environmental impacts of the continued storage of spent fuel as stated in Section 51.23.

Section 51.53(c) requires that an applicant for a renewal of an operating license submit an ER with the application. The ER must contain a description of the proposed action, including the applicant's plans to modify the facility or its administrative control procedures as described in accordance with Section 54.21. The ER must describe in detail the modifications directly affecting the environment or affecting plant effluents that affect the environment. In addition, the applicant shall discuss the environmental impacts of alternatives and any other matters described in Section 51.45. The ER is not required to include discussions of (1) need for power, (2) the economic costs and economic benefits of the proposed action or of alternatives to the proposed action except insofar as such costs and benefits are either essential for a determination regarding the inclusion of an alternative in the range of alternatives considered or relevant to mitigation, (3) other issues not related to the environmental effects of the proposed action and the alternatives, or (4) the environmental impacts of the continued storage of spent fuel as stated in Section 51.23.

For those applicants seeking an initial license renewal and holding an operating license, construction permit, or combined license as of June 30, 1995, the ER shall include the information required in paragraph (c)(2) of Section 51.53, but is not required to contain analyses of the environmental impacts of certain license renewal issues identified as Category 1 (generically analyzed) issues in Appendix B to Subpart A of Part 51. The ER must contain analyses of the environmental impacts of the proposed action, including the impacts of refurbishment activities, if any, associated with license renewal and the impacts of operation during the renewal term, for those issues identified as Category 2 (plant-specific analysis required) issues in Appendix B to Subpart A of Part 51 and must include consideration of alternatives for reducing adverse impacts of Category 2 issues; the required analyses are listed in Sections 51.53(c)(ii)(A)-(M). In addition, the ER must contain any new and significant information regarding the environmental impacts of license renewal of which the applicant is

aware.

Section 51.53(d) requires that an applicant for (1) a license amendment authorizing decommissioning activities at non-power reactors, (2) license termination at power reactors, or (3) a license amendment to store spent fuel at a nuclear power reactor after expiration of its operating license, submit copies of a document entitled "Supplement to Applicant's Environmental Report - Post Operating License Stage." The supplement is required to reflect any new information or significant environmental change associated with the applicant's proposed decommissioning or license termination activities or with the applicant's proposed activities with respect to the planned storage of spent fuel.

Section 51.54 (Environmental Report - Manufacturing License) requires that an applicant for (1) a license to manufacture a nuclear power reactor or (2) amendment to a license to manufacture a nuclear power reactor seeking approval of a final design of a power reactor, submit an ER that addresses environmental matters specified in Part 52 and that contains the information specified in Section 51.45, as appropriate.

Section 51.55 (Environmental Report – Standard Design Certification) requires design certification applicants and applicants for amendments to design certifications to submit an ER, which must address the costs and benefits of Severe Accident Design Mitigation Alternatives (SAMDA) and the bases for not incorporating SAMDA in the design to be certified. The ER must address whether the design change that is the subject of the proposed amendment either renders a SAMDA previously rejected in an environmental assessment to become cost beneficial, or results in the identification of new SAMDA that may be reasonably incorporated into the design certification. The information required under Part 51 is needed to ensure the NRC meets its obligations under NEPA.

Section 51.58 (Environmental Report - Number of Copies; Distribution) requires that an applicant submit one copy of its ER. The applicant is to retain the capacity to generate copies of the report for distribution to parties and Boards in the NRC proceeding (hearing process), and for distribution to Federal, State and local officials. Submittals may be made electronically and the NRC has detailed guidance available to assist submitters.

Section 51.60(b) requires that an applicant prepare an ER for the following types of actions:

- (1) Issuance or renewal of a license or other form of permission for:
 - (i) Possession and use of special nuclear material for processing and fuel fabrication, scrap recovery, or conversion of uranium hexafluoride pursuant to 10 CFR 70;
 - (ii) Possession and use of source material for uranium milling or production of uranium hexafluoride pursuant to 10 CFR 40;
 - (iii) Storage of spent fuel in an independent spent fuel storage installation (ISFSI) or the storage of spent fuel or high-level radioactive waste in a monitored retrievable storage installation (MRS) pursuant to 10 CFR 72;
 - (iv) Receipt and disposal of radioactive waste from other persons pursuant to 10 CFR 61;

- (v) Procession of source material for extraction of rare earth and other metals;
 - (vi) Use of radioactive tracers in field flood studies involving secondary and tertiary oil and gas recovery; and
 - (vii) Construction and operation of a uranium enrichment facility.
- (2) Issuance of an amendment that would authorize or result in:
- (i) A significant expansion of a site;
 - (ii) A significant change in the types of effluents;
 - (iii) A significant increase in the amount of effluents;
 - (iv) A significant increase in individual or cumulative occupational radiation exposure;
 - (v) A significant increase in the potential for or consequences from radiological accidents; and
 - (vi) A significant increase in spent fuel storage capacity, in a license or other form of permission to conduct an activity listed in 51.60(b)(1) above.
- (3) Amendment of a license to authorize the decommissioning of an ISFSI or MRS pursuant to 10 CFR 72.
- (4) Issuance of a license amendment pursuant to Part 61 to authorize (i) closure of a land disposal site, (ii) transfer of the license to the disposal site owner for the purpose of institutional control, or (iii) termination of a license at the end of the institutional control period.
- (5) Any other licensing action for which the Commission determines an environmental report is necessary.

Section 51.61 requires that an applicant for issuance of a license for storage of spent fuel in an ISFSI or for storage of spent fuel and high-level radioactive waste in an MRS pursuant to 10 CFR 72 submit an "Applicant's Environmental Report - ISFSI License" or "Applicant's Environmental Report - MRS License," as appropriate, with its application. The ER shall contain the general information specified in 51.45 and shall address the siting evaluation factors contained in Subpart E, 10 CFR 72.

Section 51.62(a) requires that an applicant for issuance of a license for land disposal of radioactive waste pursuant to 10 CFR 61 submit an "Applicant's Environmental Report - License for Land Disposal of Radioactive Waste" with its application. The ER and any supplement to the ER may incorporate, by reference, information contained in the application or in any previous application, statement or report filed with the Commission provided that such references are clear and specific and that copies of the information so incorporated are available at the NRC Web site, <http://www.nrc.gov>, and/or at the NRC Public Document

Room.

Section 51.62(b) requires that the ER contain the general information specified in Section 51.45, that the ER address the applicant's environmental monitoring program required by 10 CFR 61.12(l), 61.53, and 61.59(b), and requires that the ER be as complete as possible in the light of information that is available at the time the ER is submitted.

Section 51.62(c) requires that an applicant supplement the ER in a timely manner as necessary to permit the Commission to review, prior to issuance, amendment or renewal of a license, new information regarding the environmental impact of previously proposed activities, information regarding the environmental impact of any changes in previously proposed activities, or any significant new information regarding the environmental impact of closure activities and long- term performance of the disposal site.

Section 51.66 specifies the number of copies that are to be submitted of an environmental report, or any supplement to an environmental report, for an application for a license, an amendment or renewal of a license covered under 10 CFR Parts 30, 32, 33, 34, 35, 36, 39, 40, 61, 70 and 72.

Section 51.68 Certain petitioners for rulemaking must also submit ERs. Section 51.68 requires that petitioners for rulemaking, who request amendments to 10 CFR Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, or 70 concerning the exemption from licensing and regulatory requirements of, or authorizing general licenses for, any equipment, device, commodity, or other product containing byproduct material, source material, or special nuclear material, submit a "Petitioner's Environmental Report," which contains the general information specified in Section 51.45.

PART 51 GUIDANCE DOCUMENTS

Title	Accession number or link
Preparation of Environmental Reports for Nuclear Power Plant License Renewal Applications, Regulatory Guide 4.2, Supplement 1, Revision 3	ML18071A400
Generic Environmental Impact Statement for License Renewal of Nuclear Plants – NUREG-1437	ML040690580, ML040690738
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