



## **NUCLEAR REGULATORY COMMISSION**

**[NRC-2020-0175]**

### **Notice of Intent to Review and Update the Generic Environmental Impact Statement for License Renewal of Nuclear Plants**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Public scoping meetings and request for comment.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) intends to gather information through the public scoping process to support the review to determine whether to update NUREG–1437, “Generic Environmental Impact Statement for License Renewal of Nuclear Plants—Final Report” (LR GEIS). The NRC is seeking public input on the proposed action and has scheduled public scoping meetings.

**DATES:** Submit comments by **[INSERT DATE 90 DAYS FROM DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received on or before this date. The NRC will hold four public webinars on August 19, 2020 and August 27, 2020 from 1:30 PM to 4:00 PM EDT and 6:30 PM to 9:00 PM EDT.

**ADDRESSES:** You may submit comments by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2020-0175**. Address questions about NRC docket IDs in Regulations.gov to Jennifer Borges; telephone: 301-287-9127; e-mail: [Jennifer.Borges@nrc.gov](mailto:Jennifer.Borges@nrc.gov). For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- **E-mail comments to:** [LicenseRenewal-GEIS@nrc.gov](mailto:LicenseRenewal-GEIS@nrc.gov).

- **Mail comments to:** Office of Administration, Mail Stop: TWFN-7-A60M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Program Management, Announcements and Editing Staff.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the **SUPPLEMENTARY INFORMATION** section of this document.

**FOR FURTHER INFORMATION CONTACT:** Jennifer A. Davis, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001, telephone: 301-415-3835; e-mail: Jennifer.Davis@nrc.gov.

**SUPPLEMENTARY INFORMATION:**

**I. Obtaining Information and Submitting Comments**

**A. Obtaining Information**

Please refer to Docket ID **NRC-2020-0175** when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2020-0175**.

- **NRC’s Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “Begin Web-based ADAMS Search.” For problems with ADAMS, please contact the NRC’s Public Document Room reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The ADAMS accession number for each document referenced herein (if that document is available in ADAMS) is provided the first time that a document is referenced. All revisions of NUREG–1437, “Generic

Environmental Impact Statement for License Renewal of Nuclear Plants” can be found in ADAMS under the following accession numbers: NUREG-1437, Vol. 1 and 2, dated May 1996 (ADAMS Accession Nos. ML040690705 and ML040690738, respectively); NUREG-1437, Addendum 1, dated August 1999 (ADAMS Accession No. ML040690720); and NUREG-1437, Vol. 1, 2, and 3, Rev. 1, dated June 2013 (ADAMS Package Accession No. ML13107A023).

## B. Submitting Comments

Please include Docket ID **NRC-2020-0175** in the subject line of your comment submission in order to ensure that the NRC is able to make your comment submission available to the public in this docket.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at <https://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment submissions into ADAMS.

## II. Discussion

In 1986, the NRC initiated a program to develop license renewal regulations and associated regulatory guidance in anticipation of receiving applications for the renewal of nuclear power plant operating licenses. The Atomic Energy Act of 1954, as amended authorizes the NRC to issue commercial nuclear power plant operating licenses for up to

40 years, and NRC's regulations allow for the renewal of these operating licenses for up to an additional 20 years. There are no specific limitations in the Atomic Energy Act or the NRC's regulations restricting the number of times a license may be renewed. The license renewal process includes reviewing the license renewal application, conducting safety and environmental reviews, and then, if all applicable safety standards are met, renewing the license. The review proceeds along two independent regulatory tracks: one considers safety issues and the other environmental issues. The reviews are directed by regulations designed to ensure safe operation and protection of the environment during the license renewal term. The NRC's regulations for the safety review are set forth in part 54 of title 10 of the *Code of Federal Regulations* (10 CFR). The NRC's environmental protection regulations implementing Section 102(2) of the National Environmental Policy Act (NEPA) are set forth in 10 CFR part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions." Renewal of a nuclear power plant operating license also requires the preparation of a safety evaluation report and an environmental impact statement (EIS) (10 CFR 51.20(b)(2)).

The LR GEIS summarizes the findings of a systematic inquiry into the environmental impacts of continued operations and refurbishment activities associated with license renewal. Of the 78 environmental NEPA issues identified and analyzed by the NRC, 59 issues were determined to be generic (i.e., Category 1); 19 issues were determined to be nuclear power plant-specific (i.e., Category 2); and one issue, "Electromagnetic fields, chronic effects," is uncategorized. Category 1 issues concern those potential environmental impacts resulting from license renewal that are common or generic to all nuclear power plants (or for some issues, to plants having a specific type of cooling system or other specified plant or site characteristic). Category 2 issues concern those potential environmental impacts resulting from license renewal that do not meet

the criteria for a Category 1 issue and, as such, require a plant-specific analysis to determine the level of impact. The uncategorized issue would also be addressed by the NRC in each plant-specific supplemental EIS.

Impact levels (small, moderate, or large) have been determined for most NEPA issues (e.g., land use, air, water) evaluated in the LR GEIS. A small impact means that the environmental effects are not detectable or are so minor that they would neither destabilize nor noticeably alter any important attribute of the resource. A moderate impact means that the environmental effects are sufficient to alter noticeably, but not destabilize, important attributes of the resource. A large impact means that the environmental effects would be clearly noticeable and would be sufficient to destabilize important attributes of the resource.

The LR GEIS has been effective in focusing the NRC's resources on important license renewal environmental impact issues and has increased the efficiency of the environmental review process. Currently, 94 nuclear units at 59 plant sites have received renewed operating licenses; 4 units at 2 plant sites have received subsequent (second) renewed operating licenses.

During the review of the LR GEIS, the NRC will re-evaluate potential environmental impacts and apply lessons learned and knowledge gained during previous license renewal environmental reviews. In addition, public comments received during previous license renewal environmental reviews will be re-examined to validate existing environmental NEPA issues and identify new ones. Upon completion of the review, the NRC will consider the need to modify, add to, consolidate, or delete any of the 78 environmental NEPA issues currently evaluated in the LR GEIS.

In the introductory remarks to appendix B to subpart A of part 51, "Environmental Effects of Renewing the Operating License of a Nuclear Power Plant," the Commission stated that, on a 10-year cycle, it intends to review the material in Table B-1 and update

it, if necessary. The previous revision cycle was completed with the issuance of a final rule and LR GEIS, Revision 1, on June 20, 2013 (78 FR 37281). Should the NRC proceed with an update to the LR GEIS, and a final rule to codify the update, the NRC's goal is to complete this effort by the end of 2023.

### **III. Request for Comments**

This notice informs the public of the NRC's intention to review and update the LR GEIS and provide the public with an opportunity to comment on the review and propose areas for update. This step is the initial opportunity for the public to participate in the review by means of the environmental scoping process, as defined in 10 CFR 51.29, "Scoping-environmental impact statement and supplement to environmental impact statement." At the conclusion of the scoping period, the NRC will consider the results of its review and public comments to determine whether to proceed with the update. The NRC will also publish a concise summary (scoping summary report) of its determinations and conclusions reached. Environmental reviews will continue under the current NRC NEPA regulatory framework throughout the course of this effort. If the NRC determines that an update is not necessary, notice of this decision will be published in the *Federal Register*.

For each license renewal review, impacts requiring nuclear power plant-specific analysis must be analyzed by the applicant in its environmental report and by the NRC in a supplemental EIS. The NRC prepares a supplement to the LR GEIS during each license renewal review that evaluates the environmental impacts specific to that nuclear power plant. Supplemental EISs may be useful during the scoping process, helping public participants understand the environmental review process and the NEPA issues associated with license renewal. Supplements to the LR GEIS can be viewed on the NRC's Web site at <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1437/>.

The NRC will first conduct scoping, document its determinations in a concise scoping summary report, and will then prepare a draft updated LR GEIS for public comment. Participation in the scoping process by members of the public and local, State, Tribal, and Federal government agencies is encouraged. The scoping process will be used to accomplish the following:

- a. Determine whether to update the LR GEIS;
  - b. Define the proposed action;
  - c. Determine the scope of the update and identify significant issues to be analyzed in depth;
  - d. Identify and eliminate from detailed study issues that are peripheral or are not significant; or were covered by a prior environmental review;
  - e. Identify environmental assessments and other EISs under development or consideration related to the scope of the LR GEIS update;
  - f. Identify any review and consultation requirements related to the proposed action;
- and
- g. Describe how the LR GEIS revision will be prepared.

The NRC invites the following persons to participate in scoping:

- a. Any Federal agency that has jurisdiction by law or special expertise with respect to any environmental impact involved or that is authorized to develop and enforce relevant environmental standards;
- b. Affected State and local government agencies, including those authorized to develop and enforce relevant environmental standards;
- c. Any affected Indian Tribe; and
- d. Any person who requests or has requested an opportunity to participate in the scoping process.

#### IV. Specific Request for Comments

In accordance with regulations (appendix B to subpart A of 10 CFR part 51), the NRC has completed a preliminary review of the LR GEIS and identified the following NEPA and related issues for possible revision and update. Per the regulations, the NRC invites the public to comment on the results of the preliminary review and requests proposals for other areas of the LR GEIS that should be updated.

- **Greenhouse Gas Emissions (new NEPA issue)** – The Council on Environmental Quality recently proposed guidance titled “Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions” (84 FR 30097; June 26, 2019) to address how NEPA analyses should address greenhouse gas emissions. The NRC should evaluate this new NEPA issue in the LR GEIS and determine the issue category and level of impact.
- **Groundwater quality degradation (plants with cooling ponds in salt marshes) (revise existing NEPA issue)** – The NEPA issue “Groundwater quality degradation (plants with cooling ponds in salt marshes)” affects two nuclear plants. This NEPA issue should be consolidated with “Groundwater quality degradation resulting from water withdrawals” and expanded to consider the environmental effects of saltwater intrusion/encroachment on adjacent surface water quality. The NRC should clarify the impacts of these NEPA issues in the LR GEIS.
- **Threatened, endangered, and protected species and essential fish habitat (revise existing NEPA issue)** – This NEPA Issue should be divided into separate interagency consultation requirements based on the Federal statutes that afford the species or habitats special status or protections. Some of these requirements do not apply to all nuclear plants (e.g., “Essential Fish Habitat”). The issue headings should be changed to “Federally Protected Species and Habitats” to clarify that these issues do not include Federal protection categories that do not require interagency

consultation or non-Federal protection categories, such as State-listed species. The meaning of “protected” should be clarified. A new finding should be added for the protection of marine resources to address requirements for interagency consultation with the National Oceanic and Atmospheric Administration under the National Marine Sanctuaries Act. The NRC should clarify the impacts of these NEPA issues in the LR GEIS.

- **Subsequent (second) license renewal (update LR GEIS to address this issue)** – The findings in the LR GEIS apply to subsequent (second) license renewal environmental reviews. The NRC should include this clarification in the LR GEIS.
- **Updated guidance on evaluating radiological doses to aquatic and terrestrial biota (update LR GEIS to address this issue)** – In February 2019, the U.S. Department of Energy updated its standard for evaluating the potential effects of radionuclides on biota titled, “DOE-STD-1153-2019, A Graded Approach for Evaluating Radiation Doses to Aquatic and Terrestrial Biota.” The NRC should include conforming changes based on this new guidance in the LR GEIS.
- **Incorporate NEI 17-04 guidance and revised BEIR VII report (update LR GEIS to address this new information)** – Incorporate Nuclear Energy Institute (NEI) guidance NEI 17-04, Revision 1, “Model SLR New and Significant Assessment Approach for SAMA,” on identifying and considering new and significant information with respect to a prior severe accident mitigation alternatives (SAMA) analysis and new information from revised Biological Effects of Ionizing Radiation (BEIR) published BEIR-VII, entitled “Health Risks from Exposure to Low Levels of Ionizing Radiation” (National Research Council Committee). Also, the LR GEIS should address nuclear power plants that did not use NEI 05-01, Revision A, “Severe Accident Mitigation Alternatives (SAMA) Analysis, Guidance Document.” The NRC should include this information in the LR GEIS.

- **New and significant information (update LR GEIS to address this issue) –**  
Explain meaning and purpose of new and significant in LR GEIS for clarity and consistency. The NRC should include this information in the LR GEIS.
- **Include the environmental impacts of new large light water (LLW) reactors holding an operating license, construction permit, or combined license after June 30, 1995 (e.g., Vogtle 3 & 4) (update LR GEIS to address this issue) –**  
Vogtle LLW Units 3 and 4 are nearing completion and the licensee could consider applying for license renewal at some future date. The NRC should include license renewal environmental reviews for LLW reactor facilities permitted for construction after June 30, 1995 in the LR GEIS.
- **Advanced and/or small modular reactors (SMRs) (update LR GEIS to address this issue) –** An advanced reactor and SMR licensee could consider applying for license renewal. The NRC should include license renewal environmental reviews for advanced reactors and SMR facilities in the LR GEIS.
- **Consideration of the environmental impacts of license renewal beyond the 20-year license renewal term (update LR GEIS to address this issue) –** The Atomic Energy Act of 1954, as amended, allows the NRC to grant nuclear power plant operating licenses for up to 40 years. NRC regulations allow for the renewal of operating reactor licenses for an additional 20 years beyond the current licensing period. The staff is in the early stages of evaluating whether to extend the operating reactor license renewal period from 20 years to a maximum of 40 years. Should the impacts analysis in the LR GEIS consider the environmental impacts of license renewal beyond the current regulatory limit of 20 years (e.g., up to a maximum of 40 years)?

The NRC is reviewing the Council on Environmental Quality’s final rule, “Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act” (85 FR 43304; July 16, 2020) to determine what effect they may have on the LR GEIS update – should the NRC ultimately decide, based on its review and public comment, to update the LR GEIS.

**V. Public Scoping Webinars**

In accordance with 10 CFR 51.26(b), the scoping process may include a public scoping meeting to help identify significant issues related to a proposed action and to determine the scope of issues to be addressed. Since this is a generic environmental review activity, the NRC will hold four public webinars for the LR GEIS update.

Each webinar will be held online and will offer a telephone line for members of the public to submit comments. A court reporter will transcribe (record) all comments received during the webinar. To be considered, comments must be provided either at the transcribed public meeting or in writing, as discussed in the **ADDRESSES** section of this notice. The dates and times for the public webinars follow:

<b>Meeting</b>	<b>Date</b>	<b>Time</b>	<b>Location</b>
Public Webinar	8/19/2020	1:30 PM to 4:00 PM (EDT)	Webinar Information: <a href="https://usnrc.webex.com">https://usnrc.webex.com</a> Event Number: 199 475 8415 Event Password: LRGEIS Telephone Bridge Line: 1-888-989-9766 Participant Passcode: 9050307
Public Webinar	8/19/2020	6:30 PM to 9:00 PM (EDT)	Webinar Information: <a href="https://usnrc.webex.com">https://usnrc.webex.com</a> Event Number: 199 208 1309

			Event Password: LRGEIS Telephone Bridge Line: 1-800-369-2104 Participant Passcode: 1290865
Public Webinar	8/27/2020	1:30 PM to 4:00 PM (EDT)	Webinar Information: <a href="https://usnrc.webex.com">https://usnrc.webex.com</a> Event Number: 199 592 7925 Event Password: LRGEIS30 Telephone Bridge Line: 1-888-995-9725 Participant Passcode: 3382561
Public Webinar	8/27/2020	6:30 PM to 9:00 PM (EDT)	Webinar Information: <a href="https://usnrc.webex.com">https://usnrc.webex.com</a> Event Number: 199 389 0782 Event Password: LRGEIS30 Telephone Bridge Line: 1-888-787-0206 Participant Passcode: 8529023

Persons interested in attending this webinar should monitor the NRC's Public Meeting Schedule Web page at <https://www.nrc.gov/pmns/mtg> for additional information, agendas for the meetings, and access information for the webinar. Participants should register in advance of the meeting by visiting the Web site (<https://usnrc.webex.com>) and using the event number provided above. A confirmation email will be generated providing additional details and a link to the webinar.

Dated: July 30, 2020.

For the Nuclear Regulatory Commission

**Robert B. Elliott,**

*Chief,*

*Environmental Review License Renewal Branch,*

*Division of Rulemaking, Environmental,*

*and Financial Support,*

*Office of Nuclear Material Safety*

*and Safeguards.*

[FR Doc. 2020-16952 Filed: 8/3/2020 8:45 am; Publication Date: 8/4/2020]