

# **Corrected Transcript**

## **Official Transcript of Proceedings**

### **NUCLEAR REGULATORY COMMISSION**

Title: Public Scoping Meeting to Discuss the Review and Potential Update of NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants

Docket Number: (n/a)

Location: teleconference

Date: Wednesday, August 19, 2020

Work Order No.: NRC-1017

Pages 1-23

**NEAL R. GROSS AND CO., INC.**  
**Court Reporters and Transcribers**  
**1323 Rhode Island Avenue, N.W.**  
**Washington, D.C. 20005**  
**(202) 234-4433**

## UNITED STATES NUCLEAR REGULATORY COMMISSION

+ + + + +

## CATEGORY 3 PUBLIC SCOPING MEETING

+ + + + +

GENERIC ENVIRONMENTAL IMPACT STATEMENT FOR LICENSE

RENEWAL OF NUCLEAR POWER PLANTS - FINAL REPORT

+ + + + +

WEDNESDAY

AUGUST 19, 2020

+ + + + +

The Scoping Meeting met via video teleconference, at 6:30 p.m. EDT, Lance Rakovan, Facilitator, presiding.

PRESENT

LANCE RAKOVAN, Facilitator

JENNIFER DAVIS, Project Manager

ROBERT ELLIOTT

KEVIN FOLK

KELLEEE JAMERSON

NANCY MARTINEZ

JEFFREY RIKHOFF

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

P-R-O-C-E-E-D-I-N-G-S

(6:35 p.m.)

MR. RAKOVAN: Thank you so much, Christine. Hello, everyone. My name is Lance Rakovan. I am a project manager at the U.S. Nuclear Regulatory Commission, or NRC as you'll hear it referred to today. It is my pleasure to facilitate today's meeting.

I'm going to do my best to help make this meeting worthwhile for everyone, and hope that you're going to help us out with that. The purpose of this scoping meeting is to provide you with an opportunity to give us your comments on the review and possible update of the Generic Environmental Impact Statement for License ~~re~~Renewal of nuclear ~~power~~plants, or NUREG-1437.

For those of you not familiar with the term Generic Environmental Impact Statement, you'll hear it referred to as GEIS or GEIS today. Today's public scoping meeting is just one way that you can participate in this commenting process, and you'll be hearing more about the various ways you can participate soon.

The meeting will essentially have two

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

parts. First, we'll hear a presentation from NRC staff ~~on topics,~~ on the topics at hand. This is information that we think is important for you to understand. You can find a link to the slides we are using at the information page for this meeting on the NRC's website.

And also, Nancy, if you could provide the link to the slides in the chat feature of WebEx, I'd appreciate it. Thank you.

We're going to try to keep the presentation short so we can get to the real reason we're conducting this meeting which is to listen to you. If you'd like to make a comment when we get to that portion of the meeting, you can send it in using the chat feature of WebEx.

If you do, please make sure that you are sending it to everyone so everyone who's monitoring the line can see it, or you can let our operator Christine know ~~how~~ that you would like to unmute your line and she'll let you know how to do that when we get to that portion of the meeting.

We are transcribing tonight's meeting to make sure we fully capture your comments. You can help us get a clean transcript by identifying yourself

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

and any group that you are with if you choose to speak.

Also please try to make sure that background noise is at a minimum, again so we can make sure that we can hear you and get your comments in full.

One item that I'm hoping that you'll take a moment to fill out is our public meeting feedback form. You can link to this form from the page from this meeting, again where you can find the slides on the NRC's website, and you can fill it out electronically. Your opinion on how this meeting went will help us improve on future meetings, so please take a moment to let us know what you think.

I would like to take a moment to introduce some of the NRC staff in attendance today. Jennifer Davis is the project manager for the GEIS. She has 18 years of environmental project management experience involving various licensing projects, including a project manager on the previous review of the GEIS.

—————Jeff Rikhoff is a senior environmental scientist and is the technical issues lead on this review of the GEIS. Jeff has many years of experience in conducting environmental reviews for

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

the NRC and other federal agencies, including as technical lead for the previous ten-year review and update of the GEIS.

Bob Elliott is the chief of the environmental review license renewal branch in the NRC's Office of Nuclear Material, Safety, and Safeguards. This is the branch that is responsible for preparing and updating the GEIS.

And also Kevin Folk is a lead environmental technical reviewer for the GEIS. He's an environmental scientist with over 25 years of experience in environmental impact assessments, including working on the various ~~GEISs~~ and the previous GEIS review.

With that I'm going to hand things over to Jennifer Davis to give the presentation. Once she's done, we'll come back and we'll move to the public comment part of the meeting.

So, Jen, if you would.

MS. DAVIS: Thank you, Lance. We want to thank everyone for participating today. We really appreciate you taking the time to meet with us to provide us with your comments.

Again, my name is Jennifer Davis and I'm

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

the project manager for the GEIS review, and I'm here to explain how the NRC plans to review and possibly update that GEIS.

Over the course of this presentation, we will explain the purpose of the GEIS, describe the review process, summarize the results of NRC's preliminary review, and tell you how you can submit your comments and any proposals for changes that you feel should be made to the GEIS.

Next slide, please, Kellee.

First, let me give you a little background. As part of the license renewal program initiated in the late 1980s, the NRC undertook a comprehensive review to identify the environmental impacts that could result from continued operation of nuclear power plants beyond the 40-year original operating license term.

The results of this comprehensive review were published in 1996 as the Generic Environmental Impact Statement for License Renewal of Nuclear Plants, also known as the GEIS.

During the review, the Commission determined that certain environmental impacts were essentially the same or similar for all nuclear power

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

plants and, as such, could be addressed generically in the GEIS. A total of 92 license renewal environmental impact issues were identified in 1996 as the result of this comprehensive review.

The primary purpose for the GEIS is to identify all the environmental effects of license renewal and to evaluate those environmental impacts considered to be generic and common to all nuclear plants. The GEIS also determined the issues that need to be addressed in nuclear plant/site-specific environmental reviews which are prepared as supplements to the GEIS.

The results of the comprehensive review are summarized as findings on these issues for license renewal of nuclear plants in Table B-1 in NRC regulations at 10 CFR Part 51. In these regulations, the Commission also indicated its intent to review and update the findings in Table B-1 and the license renewal GEIS every ten years.

This meeting today is part of our process in determining whether the NRC should revise the GEIS and update the summary findings in Table B-1, but most importantly to receive your comments and proposals for areas of the GEIS that need to be updated.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701



The GEIS has been very effective in focusing license renewal environmental reviews on important site-specific issues and concerns at nuclear power plant sites, thereby increasing the overall efficiency of license renewal environmental reviews.

Lessons learned and knowledge gained about environmental issues of public concern during these site-specific reviews are also considered when updating the GEIS. Public comments are also used to help validate the existing environmental issues and to identify new ones.

In revising the GEIS, the NRC staff would consider the need to modify, add to, consolidate or delete any of the environmental issues evaluated in the GEIS. As a result of the previous ten-year comprehensive review, which was completed in 2013, the NRC carried forward 78 of the original 92 environmental impact issues for detailed consideration in the GEIS.

The 2013 review did not eliminate any of the environmental issues evaluated in the '96 GEIS, but certain issues were consolidated or grouped according to similarities. Slide 4, Kellee.

The range of environmental impact issues

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

addressed by the GEIS and considered during every license renewal environmental review is wide-ranging.

This slide gives you an idea of some of the important environmental impact areas that the NRC considers during each review and it also reveals areas evaluated in the GEIS. Next slide, please.

As previously noted, Table B-1 in 10 CFR Part 51 summarizes the findings on environmental impact issues analyzed in the GEIS. In other words, the GEIS is the technical basis for the summary findings in Table B-1.

As many of you may already know, the issues in Table B-1 are characterized ~~as with~~ either Category 1 or Category 2. Category 1 issues are considered generic as the impacts have been found to be essentially the same or similar at all nuclear plants.

Category 2 issues are impact issues that need to be addressed at nuclear plant/site-specific environmental reviews. Category 1 impacts are addressed in the GEIS and are usually not evaluated in site-specific environmental reviews unless new and significant information has been found that differs from the findings presented in the GEIS.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

Next slide, Kellee.

In reviewing the GEIS, the NRC is also considering whether the summary findings on environmental impact issues listed in Table B-1 needs to be updated, modified or deleted.

We are considering whether new environmental impact issues need to be added and evaluated in the GEIS including issues identified during nuclear plant/site-specific environmental reviews, but also due to changes in environmental laws and regulations.

We are also considering whether to reorganize the issues in the GEIS to clarify and simplify impact discussions and streamline environmental impact analyses. In addition, we would also review the organization and format of the GEIS.

Most importantly, the review will consider public comments we receive today, during the scoping period, as well as comments received during nuclear plant/site-specific environmental reviews. Next slide.

This process illustrates the process for reviewing and updating the GEIS along with opportunities for public involvement. The NRC issued

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

a notice of intent to conduct scoping for the ten-year review of the GEIS on August 4th of this year.

This notice initiated a 90-day public scoping period, so public comments received today and throughout the scoping period will aid the Commission's decision on whether to proceed with updating the GEIS and Rule.

At the end of the scoping period, the NRC staff will review all public comments and determine whether to proceed with the review and update. Should the determination be made to proceed, the staff would draft a rulemaking plan for the Commission's review and approval explaining the reasons for updating the GEIS and Rule. If this is approved, the staff would begin to revise the GEIS and draft proposed rule changes.

Once this is completed and approved by the Commission, the draft GEIS and proposed rule would be issued for public review and comment. For results of that comment period, the staff would collect all comments received and would make any necessary revisions to the GEIS and Rule, and then the Commission would then review and approve the final GEIS and Rule. Next slide.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

But today we're requesting your help in identifying environmental issues and concerns needing to be evaluated and updated in the GEIS. We also would welcome any proposals for changes that you feel should be made to the GEIS and the license renewal environmental reviews. Next slide.

NRC staff has completed its preliminary review and identified several potential areas needing to be addressed or updated within the GEIS. The staff identified greenhouse gas emissions as an area needing to be addressed because the Council on Environmental Quality issued proposed guidance on June 26 of 2019, titled "Draft National Environmental Policy Act Guidance on the Consideration of Greenhouse Gas Emissions," which explains how federal agencies should address greenhouse gas emissions in their NEPA analyses.

Now the GEIS does already discuss the environmental impacts of greenhouse gas emissions, so the discussion would be updated to ensure consistency with the CEQ's proposed guidance. In addition, the NRC staff is also considering whether to evaluate greenhouse gas emissions as a new Category 1 or 2 issue.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

Next, Table B-1, NEPA issue: Groundwater Quality Degradation, Plants with Cooling Ponds in Salt Marshes, affects two nuclear plants. The NRC staff is determining whether this issue should be consolidated with groundwater quality degradation resulting from water withdrawal and expanded to consider the environmental effects of saltwater intrusion and encroachment on adjacent surface water quality.

The NRC staff is also considering whether the existing NEPA issue in Table B-1, titled Threatened, Endangered, and Protected Species and Essential Fish Habitat, should be divided into separate interagency consultation requirements based on federal statutes that afford certain species or habitats special status or protection. Some of these requirements do not apply to all nuclear plants, for example, essential fish habitat.

The staff is also considering whether the issue heading itself should be changed to federally protected species and habitats to exclude protection categories that do not require interagency consultation or nonfederal protection categories, such as state-listed species, as well as clarifying the meaning of the word protected.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

In addition, the staff is also considering whether 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. Next slide, please.

Based on the staff's further review, staff has determined that there is a need to clarify that the findings in the GEIS also apply to subsequent or second license renewal environmental reviews.

The staff is considering revising the GEIS to clarify that the generic effects of license renewal are not limited to the first initial renewal and can be applied to subsequent renewals.

The next area deals with incorporation of updated guidance. In February 2019, the Department of Energy updated its "gGraded aApproach for eEvaluating rRadiation dDoses to aAquatic and tTerrestrial bBiota," which is the standard for evaluating the potential effects of radionuclides on biota. The NRC is considering making conforming changes based on this new guidance in the GEIS.

The NRC staff would also like to endorse Nuclear Energy Institute guidance, NEI 17-04 Revision

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

1, "~~m~~Model [~~s~~Subsequent ~~l~~License ~~r~~Renewal or] ~~SL~~OR, ~~n~~New and ~~s~~Significant ~~a~~Assessment ~~a~~Approach for SAMA" in the GEIS. This guidance explains how license renewal applicants should identify and consider new and significant information with respect to a prior severe accident mitigation alternative, or SAMA, analysis.

The staff would also incorporate new information from the revised Biological Effects of Ionizing Radiation or BEIR VII report, titled "~~Health~~ Risks from Exposure to Low Levels of Ionizing Radiation," which was prepared by the National Research Council committee.

In addition to revising the GEIS, the NRC staff would also address subsequent license renewal review situations where licensees did not use NEI Guidance ~~05-01~~ in Revision A with "~~s~~Severe ~~a~~Accident ~~m~~Mitigation ~~a~~Alternatives~~s~~, (SAMA)~~s~~, ~~a~~Analysis ~~g~~Guidance ~~d~~Document" during the previous reviews.

And, finally, on this slide, the NRC staff has determined that there is a need to better explain the meaning and purpose of new and significant information in the GEIS for clarity and consistency in nuclear plant/site-specific environmental reviews.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701



Next slide, please.

Currently, NRC regulations limits the findings in Table B-1 to only those nuclear plants licensed to be constructed and operated prior to June 30th of 1995.

Vogtle Units 3 and 4 are nearing completion and the owner-licensee could consider applying for license renewal. The NRC staff is considering whether to revise the GEIS to address large light water power plants permitted for construction and operation after this date.

The NRC staff is also considering the future utility of the GEIS. For example, an advanced reactor or small modular reactor licensee could at some point in the future apply for license renewal. The staff is considering whether to include license renewal environmental reviews for these facilities in the GEIS.

And, finally, the staff is considering the environmental impacts of license renewal beyond the 20-year license renewal term. The Atomic Energy Act, as amended, allows the NRC to grant nuclear power plant operating licenses for up to 40 years.

NRC regulations allow for renewal of

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

reactor licensees for up to an additional 20 years beyond the current licensing period. The staff is in the early stages of evaluating whether to extend operator or reactor license renewal periods from 20 years to a maximum of 40.

So the question is, should the impact analyses in the GEIS consider the environmental impacts of license renewal beyond the current regulatory limit of 20 years up to a maximum of 40 years?-

This summarizes the results of the NRC's preliminary review of the GEIS. The NRC invites the public to comment on the results of this review and requests proposals for other areas of the GEIS that should be updated.

It is also important to note that the NRC is reviewing the Council on Environmental Quality's July 16th, 2020 final rule which updates the "Regulations Implementing the Procedural Provisions of the National Environmental Policy Act" to determine its effect on the GEIS. Next slide, please.

Now there are multiple ways to comment on the NRC's review and you only need to submit comments

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

by one of the methods listed on this slide. You can email your comments directly to our project email address at [LicenseRenewal-GEIS@nrc.gov](mailto:LicenseRenewal-GEIS@nrc.gov).

You can also submit comments through regulations.gov by searching for docket ID number NRC-2020-0175. You can also submit written comments by mail to the NRC's Office of Administration at the address provided on this slide.

If you choose to submit written comments, we specifically state that you are commenting on the license renewal GEIS and reference the appropriate docket ID number in your correspondence. That makes it easier for our administrative staff to route your comments to us in a timely fashion.

However, please note that due to the COVID-19 situation, providing comments via our project email address or through regulations.gov are the preferred methods as there are currently limited staff in the NRC building. We'd also like to remind you that comments will not be edited, so to remove any personal or identifying information. So do not include any information in your comments that you do not want publicly disclosed.

And, finally, you can provide comments at

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

today's meeting. As Lance mentioned, we do have a court reporter here to help us record all comments that we receive today. Next slide.

As a reminder, the deadline for submitting comments is November 2nd, 2020. At the conclusion of the scoping period, the NRC will review all public comments and proposals to determine whether to proceed with the update. If the NRC determines that an update is not necessary, a notice of this decision will be published in the Federal Register. Next slide.

This slide provides contact information in case you have any questions or need to reach out to the NRC staff to discuss any concerns about the GEIS review. Again, all comments received during scoping will be considered.

And with that, I'll turn the meeting back over to Lance. Thank you.

MR. RAKOVAN: Okay. Thank you very much, Jen.

I'd like to open the phone lines and allow the chat, and what I'd like to focus on at least initially is if there's any questions on Jen's presentation. So if there's anything that Jen went over that you'd like a little more clarity to or you

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

are a little confused about, let's hit those now and then we'll move on to the commenting phase.

So again, if you want to submit a question using the chat feature, please actually send it to everyone.

And, Christine, if you could let folks know how to alert you if they'd like their line unmuted, please?

OPERATOR: Thank you. At this time, we'd like to begin the question and answer session of the conference. If you would like to ask a question, please press star, then 1. You will be prompted to record your first and last name, and to withdraw your question you may press star then 2.

Once again, if you would like to ask a question over the phone line, please press star, then 1 and record your first and last name. One moment for the first question, please.

MR. RAKOVAN: Okay, we'll pause to see if we get any questions.

OPERATOR: At this time, sir, I'm showing no questions.

MR. RAKOVAN: Okay. That's okay. There is no reason that you can't ask a question as we move

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

forward with the meeting. We will go ahead and take your question along with any commenters we get. So let's go ahead and open it up to comments.

If you have any comments on issues that we should consider in terms of the GEIS or any other input that you'd like to give us, again you can alert Christine if you'd like her to unmute your line or you can send it in using the WebEx chat feature. Please send it to everyone.

OPERATOR: Once again, if you would like to comment at this time, please press star, then 1, and record your first and last name.

At this time, sir, I'm showing no comments on the phone lines.

MR. RAKOVAN: Okay, thank you.

I'm seeing nothing pop up on the chat either. We'll pause for a little while just to give folks a chance, just in case they're feeling shy and/or if they're typing something up though.

Well, Jen, do you want to go one more time through how folks can provide comments?

MS. DAVIS: Yeah, sure. Sure. Going back to slide 12 --

MR. RAKOVAN: Yeah, it's up.

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

MS. DAVIS: If you're not ready to comment today that is perfectly fine. We did provide a lot of information to you. What you can do is submit your comments directly through our project email address at [LicenseRenewal-GEIS@nrc.gov](mailto:LicenseRenewal-GEIS@nrc.gov).

You can also submit comments via regulations.gov. Be sure to search for the docket ID as indicated here on this slide. You can also mail comments to the Office of Administration at the address listed here, but please make sure that in your correspondence you note that you're talking about the license renewal GEIS and reference the appropriate docket ID. That way, the Office of Administration can route it to us.

But as we mentioned earlier, we're cautioning, the first two options listed on this slide are the quickest way to get your comments in to us as we do have limited staff in the building at this time.

And, of course, you can provide comments at this meeting. But if you are not inclined to do so tonight, that is fine. We can give like a customary rule, one more minute, otherwise we will conclude for the evening.

MR. RAKOVAN: So before we convene, Jen,

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701

should we mention that there are two additional meetings that we're going to be conducting next week?

MS. DAVIS: Yes. You took the words right out of my mouth. That's what I was thinking to say.

So next week, Thursday, August 27th, we have another set of public meetings, both are scheduled for the same time. The first session is from 1:30 to 4:00 and the second session is from 6:30 to 9:00.

And the presentation will be the same, but we really look forward to receiving comments on what we have proposed in Section 4 of the Federal Register Notice, which is the results of our preliminary review.

MR. RAKOVAN: And those are Eastern Time Zone times.

MS. DAVIS: Those are all Eastern Time Zone.

MR. RAKOVAN: All right. Well, Christine, unless we have someone who's asked to make a comment, I see nothing on the chat.

OPERATOR: Sir, at this time, I'm showing no questions or comments.

MR. RAKOVAN: Okay. Well, thank you all

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701



for your time tonight and stay safe out there. Thank you.

MS. DAVIS: Thank you, everyone.

(Whereupon, the above-entitled matter went off the record at 7:04 p.m.)

**NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS  
1323 RHODE ISLAND AVE., N.W.  
WASHINGTON, D.C. 20005-3701