# Official Transcript of Proceedings NUCLEAR REGULATORY COMMISSION

Title: Public Meeting on the Proposed Rule Renewing

Nuclear Power Plant Operating Licenses -

**Environmental Review** 

Location: Westlake, Texas

Date: 03-30-23

Work Order No.: NRC-2294 Pages 1-84

NEAL R. GROSS AND CO., INC.

Court Reporters and Transcribers

1716 14th Street, N.W.

Washington, D.C. 20009

(202) 234-4433

### UNITED STATES OF AMERICA

## NUCLEAR REGULATORY COMMISSION

+ + + + +

PUBLIC MEETING ON THE PROPOSED RULE RENEWING

NUCLEAR POWER PLANT OPERATING LICENSES -

ENVIRONMENTAL REVIEW

+ + + + +

THURSDAY

MARCH 30, 2023

+ + + + +

The Meeting was convened at the Marriott Dallas/Fort Worth Westlake, 1301 Solana Boulevard, Building 3, Westlake, Texas, and via Video-teleconference, at 6:00 p.m. CDT, Lance Rakovan, Facilitator, presiding.

### PRESENT

LANCE RAKOVAN, NMSS/REFS, Facilitator

Lynn Ronewicz, Online Facilitator

JENNIFER DAVIS, NMSS/SLED

KEVIN FOLK, NMSS/SLED

TRISH HOLAHAN, NMSS/SLED

YANELY MALAVE-VELEZ, NMSS/SLED

# A-G-E-N-D-A

	PAGE
OPENING REMARKS	
Lance Rakovan	3
PRESENTATION	4
PUBLIC COMMENTS	54
ADJOURN	84

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

(6:11 p.m.)

MR. RAKOVAN: My name is Lance Rakovan, and I am an environmental project manager at the Nuclear Regulatory Commission, or NRC. And I want to invite you all to this evening's meeting.

The purpose of our meeting today is to provide information and receive public comments on the proposed changes to NRC regulations, draft Revision 2, NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, otherwise known as the LR GEIS and associated guidance.

This is a comment gathering meeting by NRC's definition, so we will be actively seeking your input after we complete our presentation. You can find the slides that we'll be speaking from today in the NRC's ADAMS electronic filing system using the accession number, Slide 2 please, ML23069A013.

They're the same slides that you hopefully picked up, for those of you in the room, on the table.

You can also find a link to those slides on the public meeting scheduling page for this meeting.

We'll be going over the various ways that you can provide your comments later in the meeting.

And we will also go through how you can provide your

comments at this meeting ,once again, [after] we have finished with our presentation.

However, please be aware that we do want to hear from you directly. So those of you who are participating virtually, we have turned the chat feature off. Keep in mind again that we are transcribing and recording our meeting tonight so we can fully capture your comments.

Now for those of you here in the room, you'll note that there are several doors, both in the back and to my right. The closest exit is almost immediately to your right after you leave if you leave in the back, or to your left if you leave to the side.

With that, I'm going to hand things over to Trish Holahan, and I'll be back once we have completed our presentation so we can move on to clarifying questions and then, of course, to listen to you to get your comments.

So, Trish?

DR. HOLAHAN: Thank you, Lance. Good evening, everyone, and welcome. As Lance said, my name is Trish Holahan. I'm the director of the Subsequent License Environmental Directorate, commonly known as SLED, in the Office of Nuclear Material Safety and Safeguards at the NRC.

Thank you all for coming out tonight, and those on the line, and participating in this meeting. With me at the table presenting are Jennifer Davis and Kevin Folk, senior environmental project managers; and also on the line presenting is Yanely Malave, rulemaking project manager.

In the audience we also have Sherri Miotla, Bob Hoffman, and Bill Rogers. And we also have a facilitator, Lynn Ronewicz, monitoring the questions online. There are several other members of the organization either in the audience or on Teams, to listen to your comments as well.

Now the purpose of tonight's meeting is to obtain public comment on the draft Generic Environmental Impact Statement for License Renewal of Nuclear Plants and the proposed rule. I'll refer to these in the future as the proposed rule package. Both those documents were published on March 3<sup>rd</sup>, 2023.

We're going to start off with a brief presentation by the staff. We want to maximize the amount of time that we have tonight to hear from you all.

I just want to start off with a few general comments on our rulemaking process at the NRC.

Writing regulations is one of the most important things that we do at the NRC. It's the vehicle we use for implementing national policy and standards. It's also the mechanism we use at the NRC to fulfill our goals which is maintaining health, and safety, and security, and protecting the environment.

The meeting we're having tonight is a very important part of that rulemaking process. It's the opportunity for the public and other interested parties to comment on what the staff has done in draft form.

Over the past few months, the Directorate has been involved in an effort to develop a rulemaking which aligns with the Commission adjudicatory order and recent Commission decisions regarding the NEPA analysis of subsequent license renewal applications.

We want your perspectives and your input.

I also want to point out in this proposed rule package, the NRC is asking for your input regarding whether this rulemaking should apply to more than two license renewal terms, initial and one subsequent.

Your feedback will help us improve our final documents, and it will provide valuable input to the Commissioners during the deliberations on the final rule and final generic environmental impact

statement.

So, we encourage you to actively participate tonight and to provide us with your input. In addition, we're also receiving written comments on the draft proposed rule and GEIS, and we'll get into that later in the presentation.

This is one of several hybrid meetings we'll be having on this proposed rule package. The others will be in the vicinity of the regions later on this month and next. Well, this is the last one of this month. They will be in a similar format, and we'll be receiving public comments at those meetings, as well as in writing.

So once again welcome and thank you for joining us tonight. And now I'll turn it over to Jennifer.

MS. DAVIS: All right, thank you, Trish. Again, my name is Jennifer Davis. I'm one of the technical project managers on this rulemaking. So, in terms of our agenda, first we'll provide a brief overview of how we got here. Next, we'll discuss the purpose of NUREG-1437 which is the Generic Environmental Impact Statement for License Renewal of Nuclear Plants or, as we call it, the License Renewal GEIS or simply LR GEIS.

We will also discuss our methodology for developing the draft LR GEIS as well as the proposed rule, summarize some of the proposed amendments we're making to 10 CFR Part 51, which is the NRC's environmental protection regulations. We'll also discuss our schedule and go over how you can submit comments. Slide 5, please.

The NRC's regulations in Appendix B to Subpart A at 10 CFR Part 51 state that on a 10-year cycle the Commission intends to review the material in the appendix, including Table B-1, and update it, if necessary.

The last 10-year review of the License Renewal GEIS was completed in June 2013. In August 2020, the NRC published a notice in the *Federal Register* which announced the NRC staff's intent to review and potentially update the 2013 License Renewal GEIS.

This notice provided the results of the NRC staff's preliminary review which included addressing subsequent license renewal, or as we call it, SLR, and requested comments and suggestions from the public for other areas that should also be updated.

During the public scoping period, the

staff conducted four public webinars, on August 19<sup>th</sup> and 27<sup>th</sup>, and the scoping period concluded on November 2<sup>nd</sup>. The NRC staff used the input from the scoping process to help prepare its first rulemaking plan which then culminated in a series of rulemaking plans submitted to the NRC Commission for its review and approval between July 2021 and April of 2022.

All of the staff's rulemaking plans included amending Table B-1 and updating the License Renewal GEIS and the associated guidance to include addressing its applicability to subsequent license renewal along with other pertinent updates.

On March 25<sup>th</sup>, 2022, the staff submitted a revised rulemaking plan, called SECY-22-0024, to request Commission approval to proceed with a rulemaking that aligned with Commission orders issued in February 2022. The orders in part concluded that the staff had not conducted an adequate NEPA analysis for previous subsequent license renewal reviews. Slide 6, please.

On April 5<sup>th</sup>, 2022, the Commission approved the staff's rulemaking plan, as described in the document I previously named, and directed that the staff initiate a rulemaking that aligned with the Commission's orders, remove the word initial from NRC

regulations at 10 CFR 51.53(c)(3), revise the License Renewal GEIS, Table B-1, and associated guidance to fully support subsequent license renewal, and to also update the documents to account for changes in applicable laws and regulations, new data, and incorporate lessons learned and knowledge gained from reviews performed since 2013. The staff was also instructed to complete this rulemaking in 24 months. Slide 7, please.

The primary purpose of the License Renewal GEIS is to identify all environmental issues associated with continued nuclear power plant operations and refurbishment during the license renewal term, and evaluate those environmental impacts considered to be generic for all or a subset of nuclear power plants.

The License Renewal GEIS also identifies and provides information on issues that need to be considered on a plant-specific basis. Plant-specific reviews are documented in supplemental environmental impact statements conducted to the License Renewal GEIS. Slide 8, please.

The License Renewal GEIS serves as the technical and regulatory basis for the proposed rule, the findings of which are codified in Table B-1 of

Appendix B of 10 CFR Part 51.

The environmental issues in the License Renewal GEIS are listed in Table B-1 and are characterized as 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 or at a subset of nuclear power plants and that additional plant-specific mitigation measures are not likely to be sufficiently beneficial to warrant further consideration. Category 1 issues are only re-evaluated in plant-specific reviews if there is new and significant information.

In contrast, Category 2 issues are those that must be considered on a plant-specific basis. Plant-specific environmental reviews must address Category 2 issues. Table B-1 summarizes the findings documented in the License Renewal GEIS on all environmental issues for license renewal of nuclear power plants. Slide 9, please.

The purpose of the NRC staff's evaluation was to determine whether the findings presented in the 2013 License Renewal GEIS remain valid for initial license renewal and to ensure that the analysis and assumptions support subsequent license renewal reviews.

In doing so, the NRC staff considered the need to modify, add to, or delete any of the 78 environmental issues in the 2013 License Renewal GEIS.

The proposed changes are intended to maintain the accuracy of the License Renewal GEIS and to ensure that future environmental reviews meet the hard look standard to fully account for the environmental impacts of initial license renewal and subsequent license renewal as documented in the draft revised License Renewal GEIS. Slide 10, please.

As illustrated on this slide, the staff used a systematic approach to evaluate the environmental effects of license renewal focusing on the effects of subsequent license renewal as directed by the Commission.

Staff focused on describing the activity or aspect of plant operations that could affect a resource, identifying that resource, evaluating past license renewal reviews and other available information, assessing the nature and magnitude of potential environmental impacts, characterizing the significance of the effects, determining whether the results of the analysis apply to all nuclear power plants, or to a subset of plants, or whether or not they're plant-specific, and to consider additional

mitigation measures for adverse impacts.

Most importantly, lessons learned and knowledge gained during previous license renewal reviews provided a major source of new information for this review. Public comments received during the plant-specific reviews were reexamined to validate existing environmental issues and to identify new ones.

Since 2013, 15 nuclear power plants have undergone initial license renewal environmental reviews. And for the purposes of this review, the NRC staff also considered five subsequent license renewal environmental reviews including two reviews where the staff had issued a draft supplemental environmental impact statement but not a final. Slide 11, please.

In the proposed rule package, the staff identified a total of 80 environmental issues that may be associated with nuclear power plant operation and refurbishment during the renewal term. Of the 80 issues, 59 were identified as being Category 1 which would be codified in the proposed Table B-1 of Part 51.

Applicants and the NRC staff would be able to rely on the generic finding as supported by the analysis in the License Renewal GEIS subject to the

consideration of any new and significant information.

The NRC staff also identified 20 environmental issues with Category 2. These are issues that cannot be evaluated generically and must be evaluated by the applicant in its environmental report and the NRC staff in its supplemental environmental impact statement using plant-specific information.

One environmental issue, electromagnetic fields, in the draft revised GEIS is listed as N/A, not applicable. Studies have not uncovered consistent evidence linking the harmful effects with field exposures. Because the state of the science is currently inadequate, no generic conclusion on human health impacts is possible.

If in future the Commission finds that a general agreement has been reached by appropriate federal health agencies that there are adverse health effects from EMFs, the Commission will then treat those issues similar to a manner of Category 2 issues. Until that time, applicants are not required to submit information on this issue.

As indicated on this slide, no environmental issues were eliminated, but certain issues were consolidated for clarity, and one issue

was subdivided into three separate issues.

Next, we will summarize the key changes to environmental issues as evaluated in the draft License Renewal GEIS, which are proposed to be included in Table B-1 under the proposed rule.

In general, all of the changes reflect new or updated information, technical and regulatory information as described in the draft revised GEIS. The staff's proposed these changes which are intended to enhance the effectiveness of the NRC staff license renewal reviews.

And now I'll turn it over to my colleague,
Kevin Folk, who will give an overview of the proposed
changes.

MR. FOLK: Thank you, Jennifer. And good evening, everyone. My name is Kevin Folk, and I will summarize the major technical changes in the proposed rule package.

For this first issue, the staff proposes to combine two closely related issues, shown on the left side of your slide, into a consolidated Category 2 issue. This revised issue is named, "Groundwater quality degradation, plants with cooling ponds."

The scope of this combined issue considers the possibility that groundwater quality and

beneficial water uses can become degraded from the migration of contaminants discharged to cooling ponds from operating nuclear power plants.

The existing Category 2 issue only considered plants with cooling ponds at inland site locations. This revised consolidated issue recognizes that plant discharges to cooling ponds can degrade groundwater, as well as surface water quality, in coastal areas as well as at inland sites. This is depending on such site-specific differences as cooling pond construction, operation, water quality, and site-specific hydrogeologic conditions.

This proposed change is based on new and significant information identified by the NRC staff during the 2019 environmental review for the Turkey Point nuclear plant in Florida. Slide 13, please.

This renamed consolidated Category 2 issue is titled, "Impingement mortality and entrainment of aquatic organisms, plants with once-through cooling systems or cooling ponds."

This issue pertains to cooling water intake effects on aquatic organisms, including finfish and shellfish, at operating nuclear plants with oncethrough, also called open cycle cooling systems.

The proposed rule combines an existing

Category 2 issue with the impingement component of an existing and related Category 1 issue to more fully address potential environmental impacts. The staff is re-naming the combined issue to consider impingement mortality rather than simply total impingement of aquatic organisms.

This change is consistent with United States Environmental Protection Agency's 2014 Clean Water Act, Section 316(b) regulations, and its revised impacts methodology. Slide 14, please.

This next issue has the same underlying regulatory and technical basis as the previous issue. It combines two existing Category 1 issues into a new Category 1 issue named, "Impingement mortality entrainment of aquatic organisms, plants with cooling towers."

The consolidated issue pertains to nuclear plants using cooling towers, which are closed cycle cooling systems. For this combined issue, the NRC staff has determined that no significant impacts on populations of aquatic organisms have been reported at any existing nuclear power plants that rely on cooling tower systems. Therefore, this combined issue is generically resolved with an impact level of small.

This finding is also consistent with the

U.S. EPA's revised Clean Water Act, Section 316(b) regulations that establish Best Technology Available standards, or BTA, for cooling water intake systems, where cooling towers are recognized as best technology for minimizing environmental impacts. Slide 15, please.

This consolidated issue, named, "Infrequently reported effects of thermal effluents," combined several closely related but seldom reported or observed effects of nuclear plant thermal effluent discharges on aquatic organisms.

These various combined effects include, for example, cold shock, thermal barriers for migrating aquatic species, the accelerated maturation of aquatic insects, and effects on dissolved oxygen and other water quality changes in receiving waters. It also consolidates the thermal effluent component of an existing Category 1 issue for completeness.

As stated in the proposed rule package, these infrequent effects would be minor and would not destabilize or alter any important attribute of aquatic populations in receiving water bodies. These impacts have been shown to be of small significance.

The NRC staff also projects that these effects or impacts would continue to be small for all

nuclear plants during any license renewal term.

Therefore, this combined issue is generic in nature or

Category 1. Slide 16, please.

Here, the staff proposes dividing an existing Category 2 issue into three separate Category 2 issues that address the potential impacts of nuclear plants on federally protected ecological resources. This proposed change will promote clarity and consistency with the separate federal statutes and interagency consultation requirements that the NRC staff must consider.

The first issue concerns listed terrestrial and freshwater species and their critical habitats under the Endangered Species Act, or ESA, subject to U.S. Fish and Wildlife Service jurisdiction.

The second of the three issues concerns ESA-listed marine and migratory species and their critical habitats under National Marine Fisheries Service jurisdiction.

The last issue concerns essential habitat for regulated marine fisheries under National Marine Fisheries Service jurisdiction, pursuant to the Magnuson-Stevens Fishery Conservation and Management Act. Slide 17, please.

The NRC staff has also identified three new environmental issues for inclusion in Table B-1 of 10 CFR Part 51. First, a new Category 2 issue, titled, "National Marine Sanctuaries Act, Sanctuary Resources," would be evaluated or would be added to evaluate potential effects of continued nuclear power plant operations on protected resources.

Currently, five operating nuclear power plants are located near designated or proposed national marine sanctuaries. This addition would enhance and clarify the NRC's interagency consultation requirements.

Specifically, Section 304(d) of the Act requires that federal agencies consult with the National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries for any actions that may injure sanctuary resources.

The NRC staff would perform a plantspecific impact assessment as part of each license
renewal environmental review to determine the
potential effects on sanctuary resources and would
consult as appropriate.

The remaining two issues are closely linked, and they will facilitate the NRC staff's environmental reviews regarding greenhouse gas

emissions, or GHGs, as well as climate change.

The NRC staff has been addressing GHG's and climate change in its licensing reviews in accordance with Commission direction since 2009, but these issues were not explicitly included in the 2013 License Renewal GEIS and rule.

Now, a new Category 1 issue, named, "Greenhouse gas impacts on climate change," would be added that evaluates the GHG impacts on climate change associated with continued nuclear power plant operation during the license renewal term.

Based on the NRC staff's evaluation, continued nuclear power plant operations and refurbishment activities emit small quantities of GHGs from such common industrial sources as diesel generators, pumps, boilers, motorized equipment, and motor vehicles. Staff analysis shows that GHG emissions on climate change during the license renewal term would be small for all nuclear plants.

In addition, a new Category 2 issue would be added titled, "Climate change impacts on environmental resources." This issue addresses the impacts of climate change on those environmental resources that may also be directly impacted by continued nuclear power plant operations.

Changes in resource conditions such as water temperature associated with climate change could result in environmental changes and interact with the incremental impacts of continued nuclear power plant operations. The impacts of climate change on environmental resources are location-specific, and they cannot be evaluated generically.

The NRC staff therefore proposes to perform a plant-specific impact assessment as part of each license renewal environmental review for this new category 2 issue. Slide 18, please.

The proposed rule package reclassifies the current Category 2, severe accidents issue, to Category 1. Under the NRC's current regulations, license renewal applicants must perform a Severe Accident Mitigation Alternatives Analysis, or SAMA, if not performed previously for the nuclear plant. This requirement would not change.

However, as proposed this issue would be resolved generically for the vast majority, if not all, existing nuclear plants. This is because future license renewal applicants will have previously completed a full SAMA analysis. All future applicants will still have to identify any new and significant information subject to independent review by the NRC

staff.

This proposed change from Category 2 to Category 1 is supported by new information and analyses performed by the NRC staff which shows an overall reduction in population dose risk and that continued severe accident regulatory improvements have reduced the likelihood of finding additional beneficial plant safety upgrades.

This new and updated information supports the Commission's expectation that further SAMA analysis would not be necessary for plants that have already completed a full SAMA analysis, or a similar analysis such as a Severe Accident Mitigation Design Alternative analysis, also called a SAMDA.

Therefore, the NRC staff has concluded that the probability-weighted consequences of severe accidents during both an initial and a subsequent license renewal term would be small.

I will now turn the presentation over to my colleague, Yanely, who will provide additional information on the rulemaking. Thank you very much.

MS. MALAVE-VELEZ: Thank you, Kevin. I am Yanely Malave-Velez. I'm the rulemaking project manager for this project.

I know we have provided a lot of

information, so I would like to summarize the proposed amendments. We will revise the existing requirements for environmental reviews for applications for license renewal of operating nuclear power plants.

The proposed amendments will codify the updated generic conclusions of the draft revised License Renewal GEIS for those issues for which a generic conclusion regarding the potential environmental impacts of issuing an initial or subsequent renewal license for a nuclear power plant can be reached.

These conclusions have been updated to account for subsequent license renewal, as well as initial license renewals, and other new information since the 2013 License Renewal GEIS update.

These issues are identified as Category 1 issues in the draft revised License Renewal GEIS. The Category 1 issues identified and described in the draft License Renewal GEIS may be applied to any initial license renewal or subsequent license renewal application by an operating nuclear power plant and have been determined to have a small impact for all plants or a sub-set of plants.

Table B-1 in Appendix B to Subpart A of 10 CFR Part 51 summarizes and codifies the Commission's

findings for all Category 1 issues. The revisions to Table B-1 account for subsequent license renewal, reflect lessons learned, knowledge gained, and experience from license renewal environmental reviews performed since the development of the 2013 License Renewal GEIS.

It also considered changes to applicable laws and regulations and factored in new scientific data and methodology with respect to the assessment of potential environmental impacts of nuclear power plant license renewal.

In addition, we made conforming changes to the provisions of 51.53(c)(3) and 51.95(c). We also clarified that it only applies to one term of subsequent license renewal. But we do have a question in the proposed rule package as to whether it should be applied to more than one term of subsequent license renewal. Slide 20, please.

The NRC staff submitted the proposed rule package to the Commission on December  $6^{\rm th}$ , 2022, and the proposed rule was published on March  $3^{\rm rd}$ . The FR citation is 88 FR 13329.

We are conducting multiple public meetings during the 60-day public comment period which ends on May  $2^{\rm nd}$ . After the conclusion of the public comment

period, the NRC staff will respond to comments received on the proposed rule, License Renewal GEIS, and associated guidance, and will update the package as appropriate.

The NRC staff plans to submit the final rule package to the Commission for its review and approval by the end of November. The estimated date of publication for the final rule is April 2024. Slide 21, please.

We have created a public website with information related to this project with links to the documents. In addition, all the documents can be found through ADAMS, and the table on the slide shows the corresponding numbers for each of these documents. Slide 22, please.

You can submit comments by any of the following methods, at today's meeting, online via regulations.gov. Be sure that you search for Docket Number ID NRC-2018-0296. Also, you can email comments to <a href="mailto:rulemaking.comments@nrc.gov">rulemaking.comments@nrc.gov</a>. If you do not receive an automatic email reply confirming receipt, please contact us at 301-415-1677. Slide 23, please.

You can also send your comments by mail to the Secretary at the address stated in the slide, and as a friendly reminder, the comment period ends on May 2<sup>nd</sup>. Slide 24, please.

I also would like to point out that in the proposed rule the NRC is seeking comments on whether the proposed rule should be expanded beyond two license renewal terms. Please provide the rationale with your response. Slide 25, please.

This slide shows the different points of contact for this project. Feel free to reach to us if you have any questions. And now, I will turn it over to Lance for further information as to how you can provide comments and questions.

MR. RAKOVAN: Okay. Thanks to all our speakers. Let's go ahead and move now to clarifying questions, specifically about our presentation tonight before we start with our formal commenting period.

Again, we're just looking for, if something was said during the presentation that you didn't quite understand, not looking to get into an in-depth discussion. We can certainly have something more in depth after the meeting. But again, if there was something that was said during the presentation that you wanted to ask a quick question on, we'd like to go ahead and do that.

For those of you who are in the room, let me walk over and turn on the microphone to make sure

that it's on. You can come up to the microphone and ask your question.

For those of you who are online, if you wish to ask a quick clarifying question, you'll need to raise your hand. At that point, once we're ready for you to speak, we'll let you know, and we'll activate your microphone. You will still need to unmute. So, you'll need to either hit your unmute button or hit \*6 if you are on the phone. Again, if you're on the phone, press \*5 to raise your hand.

So again, just looking for quick clarifying questions on the presentation. We'll be moving to our formal commenting, and I have a number of speakers already signed up to speak once we're done with the questions.

So, sir, if you could ask your question, please?

MR. BURNHAM: Good evening, my name is Lon Burnham. I'm here representing the Citizens for Fair Utility Regulation and Parent Coalition for Environmental Awareness.

My question is regarding Slide 17. Most of the citizens in the room here tonight were at the recent hearing in Glen Rose, and we had some questions then. And they're re-stimulated by this Slide Number

17.

My attorney friend may have been mistaken, but her observation was that the rule revision would not allow considerations for impact on climate change. Looking at Slide Number 17, it looks like you have that consideration built in.

But my question is, the word choice here, it seems like it's skewed in the direction of thinking that maybe we don't need to be concerned about certain climate change events here in Texas.

So I'm going to ask you if, included in what we can't see here in the slide, is consideration of the flooding that occurred at the South Texas Plant during the most recent large hurricane, the entire grounds were flooded, the plant itself was not flooded, but we know, based on the increasing intensity of hurricanes, it is likely that there will be a hurricane sometime in the next 20 years that will flood the plant itself.

So, I think that's a pretty important environmental consideration that could be applied to the one that was built on the beach in California as well.

And then as regards [to] the plant here in North Texas, just 45 miles from my home in Fort Worth,

a lot of discussion centered around the increased seismic activity due to fracking in injection wells in the area.

We've had some of the strongest seismic activity on record in the last ten years because of this. And we pleaded with people in Glen Rose to take this into consideration as you consider extending the license of any plant.

And I just want some, I mean, you can't tell from looking at the word choice here whether or not you're actually taking these concerns into consideration or you're just looking at the concerns that are advantageous to the industry.

MR. FOLK: So, thank you for your question, Kevin Folk of the NRC staff. The scope of the NRC's environmental review looks at the impact of the proposed action, in this case continued nuclear power plant operation, on the environment. That is the scope given to the NRC under the National Environmental Policy Act and our implementing regulations in 10 CFR Part 51.

With specific regard to the new Category 2 issue that the staff has proposed, that issue would look at any changes in environmental conditions associated with climate change that could interact

with the direct impacts of those of continued nuclear power plant operations, so changes on water quality, changes on water availability that could be exacerbated by climate change. This issue would add those issues to the scope of the staff's environmental review.

MR. BURNHAM: So, if I understood your answer correctly, you would be taking into consideration the fact that there could be a continuing drought and we could have a problem with water availability for cooling at the Comanche Peak Plant.

But it was not clear to me whether or not you will be taking into consideration the impact of hurricanes on plants that are in the coastal areas.

MR. FOLK: In the staff's environmental review, we do not look at the impacts of the environment on the plant's physical infrastructure. That is an ongoing operating reactor issue. It's continuously reviewed and updated as part of our reactor oversight program.

So changes in environmental conditions, changes in the risk profile of natural phenomenon, would be addressed, are addressed on a continuous basis such that if a condition becomes known to the

NRC and to the licensee, you know, we take a look at that issue at that time.

We don't wait until we have a reactor license renewal before us to look at those issues. So therefore, they're not within the scope of the environmental review.

MR. BURNHAM: That's very concerning. And I would like to register an objection to that. Because I think if you review the situation at the South Texas Plant they refused to timely shutdown the facility when there was a lot of advice that they should shut it down such that they don't risk a catastrophic accident. And there should have been some sort of penalty at that time.

And certainly, if they come forward and ask for an extension of their operation license, it would be really unwise not to take into consideration that it's likely going to flood next time.

I don't know whether or not you consider the seismic activity in North Texas as natural. We do not. We think it's induced by industry doing inappropriate fracking in injection wells. And it is creating a hazard and problem.

You're in the process right now reviewing the request on the Comanche Peak Plant to extend its

license. And many of the people in this room tonight raised objections based on that concern. Do you consider seismic activity caused by humankind a natural activity? Will it be included in our scope?

MR. RAKOVAN: Sir, that sounds more like a comment that, that should be included as part of the scope.

MR. BURNHAM: Sorry, say that again?

MR. RAKOVAN: That sounds more like a comment that, you're making a comment that you want that to be included as part of the scope.

MR. BURNHAM: I'm parsing words with him.

I'm asking whether or not the seismic activity is considered a natural phenomenon when, in fact, in this community it's not natural.

MR. RAKOVAN: Kevin, do you want to --

MR. FOLK: So as part of our severe accident issue, we do evaluate new and significant information with respect to natural phenomena, accidents that could be caused by new and significant information with respect to natural phenomena. So that would cover flood hazard, for example, and it would cover seismic activity.

MR. BURNHAM: And flooding as you mentioned earlier. Thank you very much.

MR. RAKOVAN: Do you have a question? Okay.

MS. GOSLING: Thank you, I'm Susie Bell Gosling. And my question is clarification about drought. Texas is not new to drought. In the 1950s we had an extremely bad drought. And the projections are, and I have seen charts, are that these droughts are going to get worse in Texas.

So that is something that is a projection. It is also our history, even though we've not had a great deal of drought recently. The reason we found rivers are full now is because more people are flushing toilets.

So, clarify about the drought issue and how you evaluate that, because it's both, from my perspective.

MR. FOLK: So as part of our Category 2, climate change impacts on environmental resources issue, we would look at trends in climate change on environmental conditions that would include water availability, water quality, meteorological conditions.

And that would be within the context of projecting what those conditions would be at the end of a license renewal term, how those changed

conditions may interact with the impacts of continued plant operation.

And as part of that review, we use consensus information from the United States Global Change Research Program which includes a number of federal agencies, including NOAA [National Oceanic and Atmospheric Administration], the United States Geological Survey. So, we take the best available recent information into account.

And that review would be part of the sitespecific license renewal environmental review where we
would do a supplemental environmental impact statement
to the License Renewal GEIS, which is what we're
talking about here tonight, where those issues would
be assessed.

And we would look at the latest available information, and in response to the gentleman's question, we would look at the best available local and regional information. Most of the information available to the NRC staff is by U.S. region.

But other states and NOAA do publish state-specific information. But wherever that information comes from, you know, we strive to look at the best available, the most up to date information, in looking at those climate change trends. So that

would cover your drought, your flooding, water availability.

MS. GOSLING: When I look at NOAA's report, I look at it from a different perspective. And I don't know the specificity that they have. But when a river dries up, and Paluxy River in Glen Rose, for the first time ever, that's a significant event.

So, I'm concerned and having land there with trees, I'm concerned about this. And I track it in my area. But it's really a big issue, so thank you. But I don't know how it shows up on the NOAA report.

MR. RAKOVAN: Thank you.

MS. MATTERN: So my name is Janet, I'm from Fort Worth. My question is regarding the question you're asking. You're asking if the rules should apply to the initial and one subsequent license renewal.

When you change rules, typically don't they apply from here on? I just don't understand the question. If you could please --

MR. RAKOVAN: Can we put the slide up, please? Sorry, I know you were listening to her intently, but I was hoping we could get the slide up in the room. This is Slide Number, there we go, 24.

MS. DAVIS: Okay, this is Jennifer Davis. So currently the scope of our rulemaking, as established by the Commission, is we are looking at limiting the rule to one term of subsequent license renewal. So, it would cover two license renewal periods which the first one is initial, and then one SLR period.

So the question that the Commission is asking the public to weigh in on is should the GEIS apply to multiple license renewal periods.

MS. MATTERN: Okay. So you are saying that currently there is the initial licensing, and each plant is allowed one renewal, one to -- MS. DAVIS: No, they're allowed up to two renewals right now.

MS. MATTERN: Up to two renewals.

MS. DAVIS: Yes. There are no limits in 10 CFR Part 54, which is a safety regulation for the Atomic Energy Act, on how many times a power plant can go through renewal.

But what we have gone through in this exercise with the Commission is should it be limited to just one term of SLR. So it would be inclusive of initial, one term of SLR, two total renewals, or should it be more? That's what the Commission is

requesting public feedback on.

MS. MATTERN: I still don't understand. So are you saying, I mean, if you --

MR. RAKOVAN: So usually initial license renewal would be operating for an additional 20 years. Subsequent license renewal would be an additional 20 years after that. So the question is should they continue to add 20-year subsequent license increments to the licensing. That's what the question is asking, as opposed to --

MS. DAVIS: No, no --

MR. RAKOVAN: -- just stopping after one subsequent license, limiting it to --

MR. FOLK: And one subsequent term. I'm sorry, Kevin Folk, NRC staff.

MS. MATTERN: Okay. So you are asking if they have the initial license renewal, the initial licensing, and then a license renewal for 20 years, and then one subsequent, and then that's the end, no more renewals?

MR. FOLK: That is --

MS. MATTERN: That is what you're asking -

MR. FOLK: That's the way that I interpret this question.

MR. RAKOVAN: Correct.

MS. MATTERN: Okay.

MR. FOLK: -- the generic environmental impact statement then would be limited to that initial renewal and one second renewal or subsequent renewal.

MS. MATTERN: But it also needs to cover the amount of time it takes to decommission the plant.

MR. FOLK: The License Renewal GEIS is for operating reactors to continue their operations. It does not address the decommissioning phase. That's a separate analysis and a separate body of regulations.

MS. MATTERN: Okay. But the current rule is that they can have 20 license renewals [unclear], but we are asking if we want to limit it to just two?

MS. DAVIS: No. The current rule that we have out on the public comment is initial renewal plus one term of subsequent license renewal. So, it's limited to two renewal periods.

MS. MATTERN: That's 60 years.

MR. FOLK: It would be 80.

MS. DAVIS: It would be 80, yeah.

MS. MATTERN: All right, and you're asking to change it to 60.

MS. DAVIS: It's 60 now.

MR. RAKOVAN: The initial licensing of

the power reactor is 40 years.

MS. DAVIS: Correct.

MR. RAKOVAN: Then the initial renewal is for an additional 20 years, so that adds up to 60. The subsequent license renewal is up to 80. The question that we're asking is whether or not we can go beyond 80 years.

MS. MATTERN: Most bodies in Texas don't live longer than 80 years.

(Simultaneous speaking.)

MR. FOLK: I'm sorry. Kevin Folk of the NRC staff. -- Okay, great.

MR. RAKOVAN: Oh, Max, are you on with us?

MS. RONEWICZ: Okay, are we ready to go online? We do have a hand raised, or not yet?

MR. RAKOVAN: We're looking to unmute Max Smith, please.

MS. RONEWICZ: Yes. Okay, I have unmuted.

MR. RAKOVAN: Max, are you with us?

MR. SMITH: Yes. Hi, this is Max Smith from the Office of General Counsel. I just want to clarify what Kevin and Jenny said. Legally there is no limit, like Jenny mentioned, on the number of times that a license can be renewed. The issue here is what terms a generic environmental impact statement will

cover.

Currently, the one that's on the books now covers one initial license renewal term. The draft one for public comment right now would cover the initial license renewal term and one subsequent license renewal term.

The question the Commission is asking you, should the scope of that analysis in the GEIS be expanded to cover one initial license renewal term and any number of subsequent license renewal terms.

I just want it to be clear that if it weren't the plants could still apply for license renewal. They would need to do a site-specific analysis, so make sure that's clear from a legal standpoint.

MR. FOLK: Kevin Folk of the NRC staff. Maybe I can add to Max's answer a little bit. What's in scope here or what's at stake here are the generic findings in the GEIS and the generic findings in Table B-1 of the rule.

So, if we were to limit the GEIS and Table B-1 of the rule to the initial license renewal term, and one subsequent term, then applicants for license renewal after that would not be able to rely on those generic findings.

All of the environmental issues would have to be effectively addressed on a site-specific basis. They would not be able to rely on the generic findings that the NRC staff has made and codified in Table B-1 of the rule, which the License Renewal GEIS supports.

It would not prevent license renewal applicants from seeking license renewal. As Max stated, there is no limit in law under the Atomic Energy Act on the number of renewals. But it would increase the burden, if you will, on licensees who seek license renewal.

MR. BURNHAM: Hi, this is Lon Burnham again. And I appreciate the clarification that you offered up as well as the General Counsel.

So, I didn't realize when I got here tonight that, and I'm not critical of the planning process, my graduate degree is in planning, but basically what I'm learning tonight is you were beginning the planning process, competitive applications for an extension on the license in the indeterminate future, which probably won't be that long, just because we're going to destroy everything anyway.

But you're setting up the planning framework to be able to renew licenses a third,

fourth, and fifth time. I'm asking, but that's my interpretation of what I've heard just now.

MR. FOLK: Kevin Folk of the NRC staff. Prior to Commission orders in February of 2022, the License Renewal GEIS could be used for and was being used for initial and any number of subsequent license renewals.

MR. BURNHAM: So that's already in the -MR. FOLK: So that planning framework

MR. BURNHAM: Learn something important every night.

MR. FOLK: However, because of the Commission orders, the Commission orders essentially remanded the rule and the GEIS back to the staff and said you [the staff] haven't done an adequate job of showing that your rule and GEIS cover subsequent license renewals. So, you need to evaluate, update, reexamine your technical bases, your environmental findings for subsequent license renewal.

So that is the proposed rule and revised GEIS that is for comment here that would, for lack of a better term, restore the ability to issue subsequent renewed licenses which the NRC currently cannot do under its current framework.

was in place.

MR. BURNHAM: Thank you.

MR. FOLK: Does that help?

MR. BURNHAM: I am both enlightened and appalled.

MS. COCKERELL: My name is Lavonne Cockerell. I live in Fort Worth. I have family in Glen Rose, and they're totally oblivious to what's going on here, even though I've told them.

Slide 15, I have comments about Slides 15, and 16, and 17. And then I have one generic comment made by a Westinghouse project manager when he was going to China selling all those power plants to China.

So Slide 15, thermal effluents, is that defined as dissolved oxygen gas supersaturation eutrophication losses from pre -- does that include those things? Or is there a definition of what thermal effluents means?

MR. FOLK: So Kevin Folk of the NRC staff.

MS. COCKERELL: Yes.

MR. FOLK: So the issue title is "Infrequently reported effects of thermal effluents."

That issue collectively includes a number of minor and rare issues or observations that have been seen maybe at one or two plants. But they've been

successfully mitigated such that the staff feels confident they are no longer of concern.

MS. COCKERELL: Okay.

MR. FOLK: That we can generically disposition them. Separately, we have a Category 2 issue where we do a plant-specific evaluation of the impacts of thermal effluents on receiving water bodies. So that issue was not affected by this.

But this is a combination of minor issues that we've collectively, you know, we've combined in this one issue.

MS. COCKERELL: And I respect that. I respect experience and fixing things from experience. It's just that, not being a scientific person, I taught English, dissolved oxygen and gas, you know, all those nice words, they --

MR. FOLK: You should try presenting it.

MS. COCKERELL: Yeah.

(Laughter.)

MS. COCKERELL: And I do like science. I just went the English route. But these things do not — this thermal effluent does not mean what was in the prior information issue, right? It's just an experience, something —

MR. FOLK: It reflects, you know, lessons

learned and knowledge gained.

MS. COCKERELL: Okay. But not necessarily these things that we're now taking out?

MR. FOLK: Correct.

MS. COCKERELL: Okay. And then Slide 16.

MS. DAVIS: Yes.

MS. COCKERELL: So, as we all know, the Endangered Species Act is very hard to get by because we have Republicans, who kill things, and Democrats, which I am, who don't want to kill things. Personal bias.

The term threatened is not a threatened species. I like catfish. It is not a threatened species in Texas, it's the cheapest fish you can buy. In some places it would be threatened. And the way you've gotten this, it would not be, it is on the Endangered Species Act.

But what you've pulled from here is maybe there is something in the area that is threatened. That's not there anymore or is less than, or it's ten percent of. And unless it's been identified and gone through that enormous process to getting a species identified, you are now not protecting that.

And this is a subject, this is Category 2 so it's, you know, when I heard Category 1 and

Category 2 I'm thinking of hurricanes, you know, things. Disruptors. So, I had to go back and remember, now, what [a] Category 1 means, Category 2 means.

So, this is a site specific, so it's not all plants, it's just if it's Comanche Peak plants.

And then you've now removed the term threatened.

Which would take into account the catfish that we lost in the Paluxy because it's now dry.

MR. FOLK: So Kevin Folk with the NRC Staff. We are not making any change to the regulatory scope of this issue. We are taking an existing issue and separating it out along the lines of the separate federal statutes and regulations that the NRC has to comply with.

The Category 2 issue, we address the issue plant specifically. Which means we looked at this issue, and the species surrounding that plant at each and every plant.

So "protected" is sort of a catchall term.

It encompasses threatened and endangered species

listed by, for example, [the] United States Fish and

Wildlife Service under the Endangered Species Act.

So, there is no change being made there by the NRC.

MS. COCKERELL: Other than you, this

specifically says, number one, threatened to endangered and protected. And so, but your change has gone to, oh hold on, did you all do that backwards? Yes. You subdivided this category.

So now only, we're only going to, we're only going to monitor if there is an endangered animal, species, and that site-specific plant. And no longer are we going to look at maybe a protected, that maybe the neighborhood protected, or anything that is threatened and we go up and say, hey, the catfish are gone, this place used to have catfish. Is that correct?

It's only, we're going to protect, or be concerned if it's something on the Endangered Species Act?

MR. FOLK: In the NRC's environmental reviews we only have the ability to look at federally protected species.

MS. COCKERELL: So this was written in --

MR. FOLK: Under applicable laws and regulations.

MS. COCKERELL: Right. But initially this was written in the 2004, is that right? When was this one first --

MR. FOLK: 2013 was the last update --

MS. COCKERELL: Was the last time.

MR. FOLK: -- to the License Renewal GEIS

--.

MS. COCKERELL: So at that time you had the ability to look at those things, and now Congress has removed that ability, you may only look at endangered?

MR. FOLK: No.

MS. COCKERELL: Okay.

MR. FOLK: No. This is just a renaming convention, for clarity, to align our regulations with the separate federal statutes and regulations --

MS. COCKERELL: I do --

MR. FOLK: -- that we have to comply with.

MS. COCKERELL: I understand that. And I think by leaving, I disagree with this change.

MR. FOLK: You disagree with the --

MS. COCKERELL: I just --

MR. FOLK: -- name change?

MS. COCKERELL: I disagree with removing threatened and protected --

MR. FOLK: Okay.

MS. COCKERELL: -- so I'll just state that. I understand your position.

MR. FOLK: And if you can provide that,

that comment on the record, that would be very helpful. Or in writing.

MS. COCKERELL: I will. And then --

MR. FOLK: Thank you.

MS. COCKERELL: -- I also would like thermal effluents to be defined. And then, for the dumb. I know you guys know --

MR. FOLK: It is --

MS. COCKERELL: -- but I do not.

MR. FOLK: -- defined in the License Renewal GEIS.

MS. COCKERELL: Oh, is it? Okay.

MR. FOLK: Yes.

MS. COCKERELL: And is that what I picked up over here?

MR. FOLK: It's that doorstop, yes.

MS. COCKERELL: Yes. Because I taught English, and I like to read, I will be reading that. And have read it. And, you know, kind of go --

Okay. And then on slide, and I'm so sorry, I'll be one and done.

MR. FOLK: Don't be sorry.

MS. COCKERELL: [SLIDE] 17, the, and this is back to my friend Lon's comments, that the fracking is a big problem. The injection wells are a big

problem. If you've lived around them, you know, there are days when your eyes tear, you know something's wrong with your water. I lived on land and there was something way wrong.

So, it's a big thing in our environment.

And it could have been fixed, you know, if people hadn't been so greedy, we could have captured all that methane when we put in those wells and we didn't.

Do you have something like this in the documents that talks about human created problems, such as these frack wells?

MR. FOLK: This is Kevin Folk with the NRC Staff. The NRC's environmental review does not look at the impacts of hydraulic fracturing in the course of its environmental review.

The scope of the environmental review is impacts of continued operations on the environment, not the impact of environmental conditions on plant infrastructure. That's part of our reactor oversight program that's looked at. You know, any challenges to the safety basis of an operating nuclear power plant are looked at on an ongoing basis. And it's not part of the environmental review specifically.

MS. COCKERELL: Oh. Because human activity is a mess, right? We humans are messes

generally. And I think about this train derailment that caused such a mess. Now, I don't think that there is a train out there, but I would like, and maybe I should save that for the comment section.

Okay. And then I'd like to tell this little story about this project manager who I knew was big. Got an engineering degree from Penn State. Real smart. One of those little smarty guys.

And he was traveling to China all the time helping to sell Westinghouse plants. And so I asked him, you know, how safe are these, and he said, we've learned a lot. We know a lot. We know how to build a safe plant. Safe plant. And then he paused and he said, until they're not.

So, wind and solar. Wind and solar fueled their lives. I will save my other comment for the next time. Thank you for your attention.

MR. FOLK: Thank you.

MR. RAKOVAN: All right, maybe one last question because we'd really like to move to commenting formally at one point.

MR. BURNHAM: It's good you said one last, because I only have one more. On Slide 11. I may have misheard the speaker elaborating on these updates to Table B-1, but under the area of 20 environmental

issues are Category 2. I thought I heard them say evaluated by the applicant.

That's a little concerning. Is it going to be restricted to that, because surely you all will evaluate that?

MS. DAVIS: Our regulations at 10 CFR 51.53(c) require that license applicants provide an environmental report that gives updated information to submit to the NRC staff for review. The NRC staff reviews that information. Also goes out and looks for its own, conducts its own independent evaluation of that information. We look for updated information ourselves. We consult with other agencies. And we develop our supplemental environmental impact statements.

MR. BURNHAM: Thank you for that elaboration because what I heard concerned me, and you clarified.

MS. DAVIS: Okay. Apologies. Thank you.

MR. RAKOVAN: All right, let me do a quick check to see if we have any hands online before we move to commenting, just to see if there is any quick clarifying questions online, but I hope, do we have any hands?

MS. RONEWICZ: Lance, there are no hands,

but why don't we give it maybe about five or ten seconds and let's just see if anybody raises their hand, but none yet.

MR. RAKOVAN: Okay. I'm willing to do that, but I really want to move to commenting.

MS. RONEWICZ: Okay. I would say move on, no hands. Thank you.

MR. RAKOVAN: All right. So, I do have a number of folks that have signed up, that I have your yellow cards. And I'll go more or less in the order that I was handed them. And then once we get through the cards here, then we'll go ahead and check online as well.

The first speaker I have is Janet Mattern. And if we could start out our comments, say like three to five minutes, see how long that takes. Make sure we give everyone a chance at the mic. And if we have additional time then we'll give everyone a second chance at the mic. But let's start with three to five minutes, if you would.

MS. MATTERN: Okay. I don't have a lot of comments because I have not had an opportunity to review the changes that you are proposing. But from what [you] have provided tonight, I see a lot of good and I see a lot of things that I have to look into a

lot more because some of the things could be explained a little bit better so that we could understand what the changes are.

I'm concerned that it was not as clear about what you were talking about regarding the terms for the GEIS being able to cover one term and a subsequent. Because to me, if you have a GEIS that is to cover all the plants, and you have new plants coming in, then you should always have an updated GEIS for the new plants that would cover the current regulations that are in there because if we have new regulations on what's covered under Endangered Species Act, et cetera, then it would need to be updated to reflect the current laws of the land.

And then I do have another comment, and that is, with this rule change you did say it would take 24 months to come into play, so it would not impact any of the current license renewals that are in progress, is that correct? The Comanche Peak license renewal, would that be impacted by it?

MR. FOLK: We can take that as a clarifying question.

MS. MATTERN: Okay.

MR. RAKOVAN: All right, we'll take that as a clarifying question.

MS. MATTERN: Okay. But the main thing I want to say is that I know NRC has a big job, I know it's very important what you do to make sure the environment is protected, and the people are protected, and I just want to make sure that you take into consideration the risk of these nuclear power plants, in addition to the nuclear waste that is stored at these facilities. Thank you.

MR. RAKOVAN: Thank you for your comments. Let's go to LaVonne Cockerell, and then after LaVonne to Lon Burnham.

MS. COCKERELL: It's LaVonne. LaVonne Cockerell.

MR. RAKOVAN: Sorry about that.

MS. COCKERELL: No, that's fine.

MR. RAKOVAN: I'm sure that that is not the only name I will mispronounce tonight, I guarantee it.

MS. COCKERELL: You're good. When I got my book the first thing I do is I start looking at the maps, because you can learn a lot from charts and maps, like I taught all my children.

And because of the concern of the seismic activity in the Comanche Peak area I found this map.

It's dated 2018. So then I went and looked at the

other maps and thought, well, this one is 2021, the farmland in the United States probably is the same, even though we're losing farmland because of global warming. And this one is 2022.

So I'm wondering why this map, at the last meeting in Glen Rose you were giving, I think there were 28 seismic activities that had occurred around this plant. Which is a concern. I don't know who that material was given to, but have you, can you update this to include the fracking things?

Put an insert, send me an insert? Because I think this is, it's not accurate. I don't want you basing much off of this because it doesn't show that there is a lot of seismic activity in Texas based on this chart. So I guess the comment is, would you get more current seismic readings for the State of Texas? And that's it. Thank you.

MR. RAKOVAN: Thank you. Let's go to Lon Burnham and then to Mavis Belisle. Belisle. I told you I'd mess some up more.

MR. BURNHAM: Good evening again. My name is Lon Burnham. I'm from Fort Worth, Texas and I'm here representing Citizens for Fair Utility Regulation, which I have been a part of since like 1979. And the Coalition for Environmental Awareness.

For those of you who don't know, CFUR challenged the license for the original operation at the Comanche Peak facility all the way to the Supreme Court. As you well know, we did not succeed. But we've been at this for a long time.

And that is probably the main reason I come with a great deal of distrust for this endeavor here. Not that I don't see a lot of good in this, I just have a whole lot of distrust for the NRC as an agency that I always described as an agency that is captive of the industry. And so I'm always concerned that rules, as we all learned growing up, determine the outcome of the game more often than not. And I'm just kind of concerned about some of these rules.

I appreciate the opportunity to ask some clarifying questions. I will be submitting comments later. But, you know, for 18 years in the Texas Legislature I was involved with a critical issue with the industry and the allegedly regulating governmental agency has simply not dealt with, and that is the issue of the waste. And the environmental impact that the waste has.

Here in Texas and New Mexico we feel in both communities, I also serve on two steering committees in New Mexico. Nuclear Watch New Mexico,

and the other one involves specifically with opposition to the Holtec site in, proposed site in New Mexico.

But the fact of the matter is, for all these going on eight decades, we've been producing a highly dangerous waste and not getting to the point of where we're dealing with it. You know, first rule of thumb in getting out of hole is stop digging and figure out where you're headed. First rule of thumb in avoiding a train wreck is stop the train.

And so I am concerned that this entire evening is dedicated to trying to, I'm afraid, streamline the re-licensing process, and that I'm afraid that I don't know enough to know how it is geared to help the industry just do what they've always been doing, which is setting up a catastrophe that the tax payers are going to have to pay for.

In our instance, it's even clearer in New Mexico, New Mexico says we don't want it. And the Governor signed legislation within the last weeks clarifying that, we don't want it.

Our Governor has sent letters. The Mayor of Forth Worth has sent letters. We've all been in the process of saying, it's your job to figure out what to do with this waste. And if I say 80 years,

that would be longer than the agency existed. But there has been a long time.

And some of the people that were at the meeting in Glen Rose that aren't here tonight, live within a, literally, a stone's throw of the railroad track that if you guys don't figure out what to do with this waste, other than bringing 85 percent of it through Fort Worth to west Texas, she is going to be living with that.

And so, I'm just kind of opposed for your renewing license of plants because we've had 80 years to figure out what to do with the waste. Every mother tells their 4- or 5-year-old to clean up the room before they go do something else. You guys need to clean up the waste. Thank you.

MR. RAKOVAN: Okay, let's go to Mavis Belisle. And then Charlotte Collins.

MS. BELISLE: Thank you. The mic was too high.

(Laughter.)

MS. BELISLE: Actually, the original question that I had was pretty much covered in the comments and your responses to those. And I appreciate that.

But a new one has been brought up. I

remember in, well, most of my experiences from environmental impact statements from the Department of Energy and around the Pantex Plant in Amarillo. One of the things that I can remember very specifically, the most recent of those saying, was that they did not have to analyze earthquake impacts because there was no earthquake activity in the area. Which is true, it's a very flat area. It's not very likely that you would have earthquakes there.

But the problem is, considering fracking.

They have very much the same impact as earthquakes do.

And fracking is very pronounced in most of Texas right now because of oil extraction, or the gas extraction.

I have had, when I, again, when I lived in Amarillo I had pictures and mirrors fall from my walls because of that activity. That seismic activity, and from what I understand of people living around Comanche Peak, that same kind of seismic activity is taking place in that area from fracking.

I really think it should be analyzed on its effects on Comanche Peak. That even though it seems small, it may be enough over time to create damage to the system in the nuclear power plant. And I would request that you consider that. Thank you.

MR. RAKOVAN: Thank you. I have one last card, and that's Charlotte Collins. You don't need to

MS. COLLINS: I didn't realize I was only signing up for a comment, so I'll express it as a comment. I would appreciate it if you would summarize what you think the effects are of the rule changes, after you give all the rule changes because for the layperson it's certainly not very clear. Thank you.

MR. RAKOVAN: Thank you. And you did not have to sign a yellow card to speak. But we'll open the floor, so if you'd like to take the floor, if you could just introduce yourself and any organization you're with please?

MS. GOSLING: I'm Susie Bell Gosling. First of all, I'd like to say thank you for coming to us. And listening to our comments. And I hope that you hear us. I will be submitting these comments now, but I will also have written comments.

And I know that you are as human as we are, and we are always looking for answers. We're always studying for what is the potential problem and what is the solution.

There is an interesting thing about the human brain. And it is information bias. And that is

a, it's often a sign that a person is inadvertently or consciously falling victim to it. Unfortunately, it can also be very subtle and difficult to spot. Some of these signs that might help you identify them when you or someone else experience this bias includes only seeking out information that confirms your belief and ignoring or discrediting information that doesn't support it.

So, I ask that you clearly look at your own perspective and take our comments seriously. Many of us have lived here since the '40s and we've experienced the climate changes in this area.

And we also look at evidence that can sometimes, for instance, for information bias, we look for evidence that confirms what you already think is true rather than considering all the elements, elements available. And we are constantly doing that. This exchange is very important for clarity.

We also know that sometimes relying on stereotypes are personal biases when assessing information. So, I hope that you will respect every one of us completely.

Sometimes we selectively remember things because our brains can be a little limited. But those items support our views while forgetting or

discounting information that doesn't support our views. Having a strong emotional reaction to information, either positive or negative, it confirms my belief, and possibly yours, while remaining relatively unaffected by information that doesn't.

So, I wanted to bring that to your attention because we are questioning each other and we are questioning ourselves. We are constantly learning and doing our best.

I was really amazed at the statement was not completely clear in your announcement for this meeting, which was not well publicized. So please make every effort to put information in all of this. Or at least the major news releases.

So, we're concerned because of some of these things like, it seems like it comes about the appearance of withholding access to the information for this meeting. I know that's not your personal intent, but it has the appearance of not being open to public comment and allowing the public to even attend when you don't publicize your meetings broadly, okay?

We are constantly looking for future problems. And we see it in a number of areas. Because basically we're seeing it, we mentioned the Paluxy River drying out. That river has never dried

out. It's gone low, but it's never completely dried out. And that's how we found the dinosaur tracks in this area because the river was completely dry.

So that's something that could easily be missed in your research. If you find that you need more information about our area, we would be happy to give it to you. We don't know what you know, and we don't know what you don't know. But we would like to have a two-way communication.

You live in a different environment, and you don't realize the winds we have. It may make a difference here. You don't realize of how we go through periods of droughts. It's not all just old cowboy stories, okay?

But I'll continue on that thought. I was concerned about the way you, the purpose of this meeting was presented. You're thinking is way up here. And most people thinking is really closer to the ground. Your knowledge is cumulative, and you have a great deal of knowledge. But most people don't.

So, when you communicate about your additional meetings in the future, simplify what that message is because I wasn't the only person that misunderstood what the purpose of this meeting is.

We're accustomed to EIS meetings. And as I say that,
I know that you know what an EIS meeting is.

But I also know that I'm talking to other people, I always say Nuclear Regulatory Commission. I always say, environmental impact study. Because the public doesn't know what a GEIS is. Or when you refer to it as a guide. That even kind of threw me because when I read it, I read it as GEIS. You see the difference?

And your job is to protect public health and the environment. And we're coming from that with that same goal in mind.

Some of these things with nuclear issues are trust issues. For those of us that were born in the '40s, we've lived with that event in Japan. And that's our image of nuclear.

We understand the danger in a different way than some of you who are much younger. And we cynically are differently [sic] because we've seen the damage. I was only 7 years old when I read about it and identified with those children in the overalls. Those little girls. That could have been me.

So, when you were talking to the public, be aware that, one, there is a very low level of understanding of nuclear issues, and that there is a

desire for the public to understand. In addition to that, companies tend to only present their best foot forward.

And we see that often in Texas. Maybe you've not seen that in other places in the country, but it is not at all unusual to hear companies present themselves and leave out a number of facts. Like when they heard the legislative session. Or at a city council meeting. They always say their best.

And so, it's what's that hidden piece of information. When you write your reports and when you communicate with the public, please be as clear as possible. And even if you can note we have considered these things and find them to not be of major danger to the public. Does that make sense?

I am not sure who oversees you. That is a piece, I know you have checks and balances within your system, that would be a piece of information that would be helpful to clarify. You are accountable to the public. You're a public agency. You're the federal government's agency.

And we are strong believers in the Democratic process. So, in that structure itself, we don't understand those checks and balances for you. I think that would help in building trust.

And we also know that there are, politics is a term that is not a dirty word when you take it by itself. It really means a way of solving problems. You negotiate, you give and you take. But sometimes people don't always use it to the best advantage to create the common good.

So, I plead with you. I ask each of you, individually, and I think you really honestly do, but look for your unconscious biases when you're making state evaluations. And we'd really appreciate that.

And for example, when the company is doing their own evaluations, I was glad that you, Ms. Davis, described that you go back and you check more. Did I understand you correctly? That builds confidence. So, thank you.

I am, also would like clarity on what is inadequate. It was one of your slides that said that you would change rules. Something about inadequate. I would have to look that up, but I can tell you after. But who defines what is inadequate information to research? Who is going to say, oh, that's nothing. Well, it really could be something. So that's part of that information bias that I'm talking about.

So, look at that word and clarify your slide that says inadequate. And your attitude towards

defining what is inadequate.

It's also interesting that the Pulunxy, am I pronouncing that right, Pulunxy? No, that's not right. Paluxy, I know that's right, River has this shell or fish in it that is only found around nuclear power plants. We may be, I may be mistaken about that, but in our reading we found something in that river has that. I'll check that out to be more accurate. I couldn't reach the person who brought that information to our attention.

There are a number of things I want for you to be able to research. And I'm going to give those to you. I would like very much for you to check the emergency procedures at the reactor and in the surrounding area. The emergency procedures, of course have to be coordinated. And actually in this state, all of the emergency personnel are trained at Texas A&M.

When I investigated Texas A&M, I learned that only the largest cities in this state have any capacity whatsoever to deal with nuclear. And if that their staff is trained somewhat. But you look at the procedures at the reactor and see that they're completely up to date. And that they continue to improve. And that county needs to have that also.

Everybody is lovely. Wants to be glad-handing each other. And you're doing a great job. But are they doing a good job? Find out if that's really true. And do they have the most up to date information?

I think that it's also, because of wind currents, it's also important to find out about the emergency processes, even in North Texas. I happen to try to escape one of the hurricanes out of Houston. It took us 38 drive hours to drive when normally it takes about four hours to get out of Houston. So, if there is an accident, how will that, what will those people do?

How will the people closest to the plant be able to get out when those roads are not completely adequate? I think that's one of the things you need to investigate.

I think that you need to look at also the artificial intelligence. The systems and the technology is above my knowledge level, but there are experts in the private area, and I'm sure at the federal level in some of the agencies, that would be able to assist you in being more aware in having them help you, because you can't know it all. And so I advise you to bring in whatever experts you need to

ensure that the system is, the artificial intelligence, is up to par.

I also am very concerned, because just today the New York Times reported about Russia's findings of, government finding or our and Russia's interference documentation of in technology. And that's literally today it was in the news. So please consider that seriously. All of us are under threat. There are many companies that have been already, banks, everything has already been.

I know that it's most likely that the technology is a closed system, but goodness gracious, there is so many things that we don't even think about. Who would have thought of all those, what do you call those, things that come in and are bombing Ukraine? Oh, I forgot.

(Off microphone comment.)

MS. GOSLING: Drones. Yes, thank you.

I mean, to think about what a drone could do at that site. I think that the illustration of what's going on in Ukraine is a possibility of what could happen. When you're talking about an additional number of years, anything could happen. We already have people attacking the grid, for example. So that's a problem that we need to address.

Also, we need to know about the economic impacts. Not only in the area of Glen Rose and the Somerville County, but also the whole region. What would happen with an accident?

mandated to deal with public health, but actually there is no environmental health studies in this country. I looked, and I'm not an expert, but there is no real studies of outbreaks of leukemia near nuclear reactors, except for a number of years ago. The technology is changed. The capabilities of investigation and tracking people as they move has changed. The most recent study comes out of France.

I was fascinated with your annual radiological environmental operating report. And it seemed that that report needs to be included in your study. So, you've got a longitudinal type of an evaluation of things. You probably already do it, but it needs to be part of the evaluation.

Then it gets into waste storage and transportation risks. The trains in Texas, the railroad tracks themselves are known to break. And we have had trains just blow over because of the wind in West Texas. We have, we'd have had head-on collisions, all of this in the last couple of years.

It doesn't make the national news, but it happens.

And that is something that you all need to evaluate because the waste is a major issue in this country.

And it is all over the world.

And the proposal now is to transport 40,000 tons of it, it's going to come from the other reactors, to Texas to be stored in West Texas. 173,000 metric tons is going to be taken to New Mexico on train tracks that are old and crumbling, and on train cars that are not designed to carry the loads. And in casks that your website reports often leak.

I'm going as quickly as I can.

MR. RAKOVAN: All right, just give me one second to do a quick check in.

MS. GOSLING: Sure.

MR. RAKOVAN: I've been checking, and I don't believe we have any hands online, but I wanted to just do a quick check to see if anyone else wanted another --

MS. GOSLING: Yes.

MR. RAKOVAN: -- time at the mic. Don't sit down yet.

MS. RONEWICZ: No hands online. If there is anybody online that would, okay, we do have a hand

raised from Beki Halpin. How shall we proceed on that, shall we --

MR. RAKOVAN: Go ahead. Go ahead.

MS. RONEWICZ: Okay.

MR. RAKOVAN: Go ahead and --

MS. RONEWICZ: I'm going to unmute. Yes.

MR. RAKOVAN: -- activate their mic.

MS. RONEWICZ: Okay. Beki Halpin, if you can now unmute, and you'll be able to speak please.

MR. RAKOVAN: Beki, are you with us? If your, if we have activated your microphone, you might still need to unmute yourself.

MS. RONEWICZ: And also I made the individual a presenter, in case that helps.

MR. RAKOVAN: Sure. Sometimes it does. All right, I'm going to assume this is a Teams issue.

MS. RONEWICZ: Yes, it appears that way. Beki Halpin, are you able to unmute yourself? I have unmuted you. And also moved you to presenter.

MR. RAKOVAN: Okay. Best thing for you to do might be to drop off the meeting and try to come back on, or to call in if you are unable to, or if you're unable to mute, or unmute your microphone. All right, I apologize with that.

We're going to go ahead and move forward

in the room then. Okay.

MS. GOSLING: Okay. Because she could have asked her question in the chat.

MS. RONEWICZ: I -- okay.

MS. GOSLING: Okay, so, let's see where — there needs to be clarification in what happens if there actually an accident at the plant. Who is going to pay for it? We have brownfields all over and many places that need cleaning up. That needs to be clarified on who is going to pay if the community, the county, this area of the state, if there is actually an accident.

And I know that the assurances that are paid to the State of Texas are not adequate. So, I don't know how that process works, but you need to look at that and make sure that it is adequate. There is a history in our country of having that funding inadequate.

I'm trying to be real short, so. Also, we can give you the seismic reports, but we can also give you the charts of the wells to give you an idea of how many wells there are that are close.

MS. RONEWICZ: You are allowed to mute. To unmute yourself, press \*6.

MS. GOSLING: -- pond. So, you may want to, if we can help you with that, we'd be happy to do that.

With the pollution in the lake, and the tritium in the lake, it's pretty clear that there is a dangerous amount of emission from the wells. I mean, from the well, from the plant reactor. And this is a major concern.

There should have been, after all these years knowing that there is emissions, there should have been a process developed. But that was not released in contaminating the water. No, we don't have groundwater polluted, but we have the water polluted. And that dam, I went out and looked at it myself, is it truly secure? It's very eroded just from my looking at it.

The air risks is one of the reasons why I wanted to ask if there is any monitors that are out in the community around the plant. And is that a system that's been setup to identify releases of radiation so that there is an alarm system that would ensure that it's safe.

We also are in tornado alley. So, what would be the impacts of a tornado on that reactor and how would the reactor respond if there were a

tremendous tornado?

I think also it would be good for the NRC to evaluate a comparison of sustainable energy to the nuclear energy. And what would be the cost of transferring into a sustainable energy and what is the cost, the actual cost, of keeping up an old, brittle nuclear reactor that is corroding? And our reports have been that it is cracked because of some of the seismic problems in the area. So those are things that need to be checked.

But we are concerned about the economy in the area. I mentioned it earlier. And you need to look at what would the cost be if they were able to convert over to sustainable energy.

I'm concerned about the rules even. The company has spent a great deal. I think my last analysis was that \$1.3 million was spent by Vistra to lobby congress just like a year or two ago. And there was no major legislation.

The industry has spent a tremendous amount of money on lobbying. So, the question rises in my mind is, are we really getting the best laws?

You keep referring back to these old laws, you know, that protect animal life and so forth, but are the laws, are you advising the legislative system

to develop more secure laws because almost all of your slides say protect public health. How are you actually doing that? What are you actually doing to protect public health and the environment?

So, it's a two-way street. You are supposed to be the experts. What do you do to inform our legislative session each year, and our state legislature? Legislatures of congress and the state legislature, how we can protect ourselves?

Thank you very much for listening to my comments. I have some other ideas. I really tried to skim through my ideas. It didn't seem like it, but I did. So, thank you so much for your attention.

MR. RAKOVAN: Thank you. All right, let's give a check online. Lynn, Megan, did we get the person who wanted speak back by any chance?

MS. RONEWICZ: It does not appear so. No hands at this, no hands at this moment.

MR. RAKOVAN: Okay. I'll give another opening in case anyone here in the room wants to have another quick time at the mic?

Please, if you just reintroduce yourself for folks online?

MR. BURNHAM: This is Lon Burnham from Fort Worth. And this is going to sound a little

snarky, but I do not believe I have participated in any NRC event of any kind since COVID that you didn't have technological problems with people [who] are participating. I just wonder how many other people were trying to get on. I know I was cut off on January 10th and wasn't able to participate and get in.

And so, I mean, we're dealing with the most incredibly important, dangerous technology in the world, but we can't even get communications down. A lot of what Ms. Gosling said was, you don't publicize these meetings. People have access trouble, getting access to them. Frankly, you could have had this at the airport and people could have gotten there using public transportation.

I mean, I don't know who does your planning, setting things up, but do register this as a complaint. Consider this snarky comment if you will, but damn it, you guys don't have the technology down to oversee nuclear power plants because you don't have the technology down for basic public participation. This is said by the guy with a graduate degree in nine hours instead of some participation. Thank you.

MS. RONEWICZ: And we do have Beki Halpin.
You are unmuted. And please go ahead and speak.

MS. HALPIN: Can you hear me?

MS. RONEWICZ: We sure can. We apologize.

MS. HALPIN: That's all right. I have to echo what Lon just said. I mean, I think it's really pitiful and it does not engender confidence when I have to try and try and try to get into a meeting. I was able to get into the last meeting using Microsoft Teams, and this time I was not able to get in at all until I went through a lot of contortions on my end to finally get in this way.

And I agree with Lon. If you can't -- if you're not using technological wisdom available just generally for people to get into meetings, what are you doing with nuclear energy? Honestly, I think it's a very valid question.

You need to, I don't have any confidence in your ability to evaluate the, whether or not a nuclear power plant should be given a permit to continue to operate many, many years past the time it was meant to operate.

Another comment I would make is that the,
I know that other people have said this, but the, all
the acronyms and all that you use in your information
that you send out are very familiar to you, but
they're very unfamiliar to the general public. And

yet it's the general public that's at danger here. It is the general public that wants to be able to look at this and give a comment. But it's almost impossible to understand what the meaning of your communication is without hours of dredging the internet to figure out what and the heck everything means.

So, I really think you need to give your information in a way that just "John Doe public" can understand. And, you know, laws have been passed in other areas that say, people have to give contracts and information about banking in ways that people can understand them and give informed decisions. You need to be giving your information in ways that people can understand them and give informed comments.

I'm sure it makes perfect sense to you, but it made garbled sense to me, frankly. Other than the fact that it's clear to me that what you want to do is give permission for old nuclear power plants that were made to have a certain life, to continue to operate past that life in a world that is no longer the same world that they were originally licensed in.

And they were licensed so that their materials and that their workings would last a certain period, but not past that. And we're asking these old

dinosaurs to keep going into a world that's hotter and less, and more chaotic. Where there is more dangers just politically. And there is more dangers physically in terms of heat and drought. And perhaps even earthquakes, depending on what part of the country you're in and whether or not they're fracking close by. And sea level rise and all sort of things that we've never had to deal with before.

And yet I don't see that reflected, honestly, in your materials. And I'm very disheartened by the whole, by the whole process. So, I'm asking that you put out your materials in a way now that people can read them and understand them and give informed comments as just a normal citizen.

And so, thanks for helping me get in. I appreciate that. But I really would be much more confident in the process if it wasn't so hard to get in. And I would be much more confident if I could really understand more clearly exactly what you're asking for in your proposed amendments. Thank you.

MR. RAKOVAN: All right, Lynn, just a quick check to see if we have any other hands online?

MS. RONEWICZ: At the moment, at the precise moment, no other hands are up.

MR. RAKOVAN: All right, I think we're at

our time, but we'll do a quick pause just to see if anyone else puts their hand up online, or if anyone else in the room wants a little bit more time at the mic.

MS. GOSLING: Susie Bell Gosling. I would like to say thank you, Lance.

MR. RAKOVAN: Okay.

MS. GOSLING: I'd like to say thank you, Lance, because you seem more patient with the participants than you were on the webinar that was in January, so thank you.

MR. RAKOVAN: Thank you. That's very kind. All right, seeing that we've gotten down --

MS. RONEWICZ: Nothing --

MR. RAKOVAN: Oh, sorry. Go ahead.

MS. RONEWICZ: I just want to say no hands. I just wanted to say no hands at this time. Thank you, Lance.

MR. RAKOVAN: Okay. All right, since we have come to the point where there are, where I'm starting to take compliments, I'm going to turn things over to Trish to conclude the meeting.

DR. HOLAHAN: Well, thank you very much, everyone, for attending in person, and those online.

I apologize for any difficulties in technology and

take it back and see if we can get it fixed.

But we've heard a lot of good questions and comments on climate change, endangered species, information bias, waste issues, so we're going to take all those comments into consideration and we'll -- and with that, thank you all for attending and close the meeting.

(Whereupon, the above-entitled matter went off the record at 8:02~p.m.)