# Official Transcript of Proceedings

# **NUCLEAR REGULATORY COMMISSION**

Title: Scoping Process for the Waste Confidence

**Environmental Impact Statement: Webinar** 

Docket Number: (NRC 2012-2049)

Location: NRC/Webinar

Date: Thursday, December 6, 2012

Work Order No.: NRC-2049 Pages 1-108

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

1	UNITED STATES OF AMERICA
2	NUCLEAR REGULATORY COMMISSION
3	+ + + +
4	WASTE CONFIDENCE DIRECTORATE
5	OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
6	+ + + +
7	WEBINAR
8	SCOPING PROCESS FOR THE WASTE CONFIDENCE
9	ENVIRONMENTAL IMPACT STATEMENT
10	+ + + +
11	THURSDAY
12	DECEMBER 6, 2012
13	+ + + +
14	The webinar was held at 9:00 p.m.
15	Eastern Standard Time, Miriam Juckett, facilitator,
16	presiding.
17	
18	NRC STAFF PRESENT:
19	MIRIAM JUCKETT, Facilitator
20	ANDY IMBODEN, Chief, Communications, Planning,
21	and Rulemaking Branch
22	LISA LONDON, Esq., Reactors and Materials
23	Rulemaking, Office of General Counsel
24	KEITH McCONNELL, Ph.D., Director, Waste Confidence
25	Directorate
1	

NRC STAFF PRESENT (CONT'D)

Branch

PAUL MICHALAK, Chief, Environmental Impact Statement

./

**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

9:00 p.m.

MS. JUCKETT: Good evening, and welcome to the U.S. Nuclear Regulatory Commission's Webinar on the Scope of the Environment Impact Statements to Support an Updated Waste Confidence Decision and Rule.

My name is Miriam Juckett, and I will be serving as your facilitator this evening.

I'd first of all like to go through the meeting process. I'll mention the objections, the format, the agenda, I'll introduce the NRC staff and then the ground rules.

We have two main objectives for this evening's meeting.

First of all, we would like to provide clear information to you on the NRC's staff approach to the waste confidence EIS. Then, we would like to present an opportunity for you to give your questions, comments, recommendations and concern to the NRC staff on the scope of the EIS and on the EIS process.

All the comments tonight will be

#### **NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701 considered with the same weight as written comments.

And we do solicit your written comments as well as your spoken comments this evening.

The format for tonight is a webinar meeting. You can view the slides online which will be beginning with the four NRC staff presentations. Then to make a comment, call in using the toll-free number that will be provided.

This is the second webinar in our series. Tonight's webinar and the webinar from yesterday will be posted online. The transcript from the first public meeting on November 14, as well as the webcast transcripts are already available on the Waste Confidence website, which will be provided in the presentations.

The ground rules for tonight are very simple. Please hold your questions and comments until after the presentations. To make sure that we get a chance to hear from everyone, we ask that you please limit your comments to just five minutes.

The webinar goes until Midnight Eastern

Time tonight or 9:00 p.m. Pacific Time. This is a

lot of time for your comments, but we do ask that you

give new callers a chance to make a comment before

you call in for second or third comments.

#### **NEAL R. GROSS**

As a reminder, when you would like to make a comment, press \*1, and we'll remind you again of that during the comment period.

The agenda for this evening is as follows. We'll have four presentations. The first is an introduction to the mission and the formation of the Waste Confidence Directorate by Keith McConnell, the Director. Second, we'll have Lisa London from the Office of General Counsel talking about the background and the waste confidence decision. Third, we'll hear from Paul Michalak, the Chief of the EIS Branch in the Waste Confidence Directorate on the approach to scoping. Last, we'll hear from Andy Imboden, Chief of the Communications, Planning and Rulemaking Branch in the Waste Confidence Directorate. And he'll be speaking about public participation opportunities.

These presentations will be followed by a 20-minute question and answer period. During this time, the NRC staff will take your questions and try to provide some answers.

We'll take a ten-minute break following that, and when we reconvene, we'll have the remainder of the time for your comments. During that time, the NRC staff may not respond to the comments

#### **NEAL R. GROSS**

immediately, but your comments will be noted and added to the scoping summary report and considered in the formation of the EIS.

I'd like to go ahead and introduce the speakers from the NRC.

Our first speaker is Keith McConnell who's the Director. Keith joined the NRC in 1986 as a geologist. He was on the staff of three former Chairman of the NRC and the Director of the Commission's Adjudicatory Technical Support Program in OGC. Most recently, he was the Deputy Director of the Decommissioning and Uranium Recovery Directorate in the Federal, State Materials and Environmental Management Office. His educational background is a Bachelor's in geology from Clemson, a Master's in geological sciences from the Virginia Polytechnic Institute and a Ph.D. in geological sciences from the University of South Carolina.

Our next speaker is Lisa London, an attorney for the Directorate. She attended NOVA Shepard Broad Law Center and did a legal externship with the Department of Justice for the Environmental Enforcement Division. She then served ten years as an enforcement attorney in the Florida Department of Environmental Protection. She has been in OGC for

#### **NEAL R. GROSS**

the last three years working on radioactive waste issues.

Paul Michalak is the Branch Chief for the EIS. He joined the NRC in 2005 as a hydrologist in the Uranium Recovery Program. He served as a Senior Project Manager for NRC's Office of New Reactors overseeing preparation of EISs on license applications for new reactors. Before NRC, he was an environmental consultant. Prior to joining the Directorate, he served as Chief of the Materials Decommissioning Branch in the FSME Division. He has a Bachelor's in Education from Temple University and a Master's in hydrology from the New Mexico Institute of Mining and Technology.

Andy Imboden is a Branch Chief, and he began his career with NRC in 2004 on the staff of former Chairman Jazcko. He then worked for the NRC's EDO. He was the Chief of the Environmental Review Branch, Division of Reactor License Renewal and NRR. Prior to coming to the Waste Confidence Directorate, he was on Chairman McFarlane's staff as a materials policy advisor. And prior to coming to NRC, he was a consulting engineering. His educational background is a Bachelor's in meteorology from Penn State and a Master's in environmental engineering from Clemson.

#### **NEAL R. GROSS**

Again, we would like to thank you for joining us this evening. And now, we will go to our first presentation by Keith.

MR. McCONNELL: Thank you, Miriam.

We in the Waste Confidence Directorate would also like to welcome you all to this webinar on Scoping the Generic Environmental Impact Statement to support a revised waste confidence decision and rule.

My opening remarks tonight will provide some background information on the meeting purposes, mission of the NRC and the mission of the recently-formed Waste Confidence Directorate that was stood up specifically to develop this generic environmental impact statement.

For the meeting purposes, there are three. As Miriam has indicated, we're going to provide some background information on the waste confidence decision specifically to help you formulate your comments and questions as we move forward with the development of the GEIS. And Lisa London will provide specifics on that.

We'll then move on and talk about the environmental impact statement development. Paul Michalak will talk about some of the proposals we have with scoping the generic environmental impact

#### **NEAL R. GROSS**

statement.

And then again, as Miriam as indicated, we'll talk about the public participation opportunities. And Andy Imboden will specifically address those opportunities.

But the bottom line of this outreach opportunity -- this webinar -- as well as all of our outreach opportunities is that we want to hear from you.

Before talking about the NRC's mission and the Waste Confidence Directorate mission, it's important to put the development of the generic environmental impact statement into context. And there are two important considerations that help us do that.

First, as we move forward in the development of this generic environmental impact statement, we will need to address the deficiencies identified by the U.S. Court of Appeals from the District of Columbia when they vacated the 2010 rule and sent it back to us to fix those deficiencies.

In addition, subsequent to the publication of the Court's decision, the NRC Commission noted that it would not issue licenses that are dependent on this waste confidence decision

until all of our analyses and the Commission's deliberations are complete.

Moving on to the NRC's mission, there are three elements to our mission. First is the protection of public health and safety. We do that through the licensing and inspection of nuclear power plants and the use of nuclear materials.

The second element is to promote the common defense and security. We do that through the implementation of appropriate security measures based on the existing threat.

And the third element is the protection of the environment. We do that through the identification and consideration of impacts that might result from our licensing action.

I would note that we have over 30 years experience in regulating the safe operation of power reactors and the civilian use of nuclear materials.

Moving on to the Waste Confidence

Directorate, again, it was formed approximately two
months ago. It's housed in the Office of Nuclear

Material Safety and Safeguards. In staffing, the
organization reached out across the Agency to bring
into the Waste Confidence Directorate some of the
most experienced staff in implementation of the

National Environmental Policy Act.

As a consequence, we have a highly skilled staff in the Directorate of environmental, communications, rulemaking and legal staff members. We're supported ably by the Center for Nuclear Regulatory Analysis which is based in San Antonio, Texas.

The mission of the Waste Confidence

Directorate was specified by the Commission in a

staff requirements memorandum. We are to develop a

generic environmental impact statement to support and

revise waste confidence decision and rule. Secondly,

we are to provide for ample opportunity for public

participation in the development of this GEIS.

And I would like to just pause a minute
-- even though Andy is going to speak directly to
this -- and talk a little bit about our approach to
public participation.

Within the Directorate, we have a focus communication team. Four staff members are devoted to outreach to those individuals that might be interested in what we do and how we do it and when we're going to do it in terms of developing this generic environmental impact statement. We intend to use multiple communication tools including blogs,

Twitter, YouTube and others. And I would note that we do have a website that's reachable through the NRC home page. And the address is listed on the slide.

And Andy will talk more about this.

So in summary, again, the licenses that are dependent on the waste confidence decision will not be issued until the rule is updated and the deficiencies identified by the Court addressed. The Waste Confidence Directorate has been formed, is up and running, and we've reached out across the Agency and brought into the Directorate some of the most knowledgeable National Environmental Policy Act experts. We have a strong focus on communication, and we will provide for ample opportunity for public participation.

Thank you, Miriam.

MS. JUCKETT: Thank you, Keith.

And next we will hear from Lisa.

MS. LONDON: Thanks, Miriam.

So I'm here today to talk to you a little bit about the background and history of waste confidence and also to provide a common framework for us to use going forward in tonight's discussions.

It's really important for us to make sure we all have a common understanding of what waste

#### **NEAL R. GROSS**

confidence is and what it is not. It's a generic environmental analysis. Under the National Environmental Policy Act, the Commission must assess the impacts of continued storage of spent nuclear fuel pending disposal at a repository. It's also a generic determination that fuel can be stored safely until a repository becomes available.

What waste confidence is not is it's not a licensing decision. It doesn't license any particular site or facility. And it does not allow for long-term storage of spent fuel at any site.

Before that could occur, a licensee would have to come back to the NRC, and there would be a separate opportunity for public involvement prior to any post-license life storage of spent fuel.

This slide is simply to demonstrate how waste confidence fits into the Commission's overall environmental analysis for reactor licensing. On the left of the slide, you'll notice a green block. And that represents the term of the license life for a reactor. In the middle is the blue block, and that is the generic waste confidence analysis that looks at post-license life storage. And to the right is the yellow. And that's a generic environmental analysis that looks at the environmental impacts

#### **NEAL R. GROSS**

associated with disposal.

At the bottom you'll notice a timeline.

And this was actually taken from the 2010 rule. We did that just to provide some context. It's here for reference only. We haven't pre-judged how long the post-license life storage will be. We just wanted to make sure everyone understood how waste confidence factors into the overall environmental analysis that the Commission undertakes.

Next slide, please.

So I'd like to provide a little background on waste confidence so that everyone understands where we started and how we got here.

The waste confidence rule was originally adopted by the Commission in 1984 in response to a 1979 Court decision from the D.C. Court of Appeals that led the Commission to look at the issues associated with waste confidence. This resulted in the generic and environmental safety findings that you would find in the 1984 rule.

Since then, the rule has been updated a number of times, most recently in 2010. In 2012, the Court of Appeals for the D.C. Circuit vacated and remanded, or basically they threw it out and they sent it back to us to do more work. They threw out

the 2010 rule and associated decision, sent it back, said do some more work.

Next slide.

Here we've got a short summary of what the Court actually found. The Court identified three specific problems with the Commission's environmental analysis to support the 2010 waste confidence rule. It found that the analysis didn't evaluate the environmental effects of failing to secure permanent disposal. And we'll be calling that the no repository scenario. You'll hear a little bit about that a little later on.

The Court also directed the Commission to provide an updated assessment of spent-fuel pool leaks and spent-fuel pool fires. As with the no repository scenario, you'll be hearing a little bit about how those are going to factor into our analysis going forward.

But the Court did find that a generic environmental assessment and associated finding of no significant impact or a generic environmental impact statement is an acceptable means to address the issues associated with waste confidence. And in response, the Commission established the Directorate that Keith mentioned and directed the staff to

1 prepare an EIS to look at these generic issues with the possibility of issuing an updated waste confidence rule. 3 So finally, there are two things I'd 5 like o leave you with, that I'd like to make sure you keep in mind as we go forward with tonight's 6 discussions. First is that the waste confidence rule 8 9 is just a small part of the overall environmental analysis for reactor licensing. That timeline slide 10 we went over a few minute ago, that demonstrates how 11 waste confidence fits into the steps the Commission 12 must take. 13 And the second thing is that waste 14 confidence doesn't license any facility or authorize 15 any storage of spent nuclear fuel. Before that could 16 happen, there would be another opportunity for public 17 participation, and a separate action would have to be 18 19 taken by the Commission. So thanks for everyone's consideration. 20 Thank you, Miriam. 21 MS. JUCKETT: Thank you, Lisa, for that 22 background presentation. 23 And next we'll go ahead and go to Paul. 24 25 Thanks, Miriam. MR. MICHALAK:

As previously discussed, we are developing an update to the waste confidence rule.

As part of that effort, we will develop and environmental impact statement, also known by its acronym EIS. The analyses and conclusions in that environmental impact statement will inform our update to the waste confidence rule.

Presently, we're working on defining the scope of the environmental impact statement.

Tonight's webinar is part of the scoping process, and we're here to get your comments and feedback.

Why develop an environmental impact statement? As previously mentioned, earlier this year, the Court of Appeals vacated and remanded the 2010 waste confidence rule. Our mission is to revise the waste confidence rule, addressing the deficiencies identified by the Court.

When developing a rule, the Commission must comply with the National Environmental Policy Act, also known as NEPA, by considering the effect of its actions on the environment. The environmental impact statement under development will contain our analyses of the environmental impacts of the updated waste confidence rule. I think it is important to note that the Commission is determined that waste

#### **NEAL R. GROSS**

confidence should be evaluated with an environmental impact statement due to public and stakeholder interests.

The environmental impact statement currently under development is an integral component of the NRC's proposed action, which is to revise the waste confidence decision and rule to account for the safety and environmental impacts of continued spentfuel storage for some period beyond the license life for reactor operations.

We have developed several potential scenarios as part of our internal scoping. The scenarios are based on different timelines for spent-fuel storage beyond a reactor's license life for operation. Currently, we will evaluate spent-fuel storage until a repository becomes available at the middle of the century, storage until a repository becomes available at the end of the century, and continued storage in the event a repository is not available.

The environmental impact statement under development will contain a generic analysis of impacts. We will not focus on capturing sitespecific technical issues. Our current strategy is to take affected environments -- for example, air or

#### **NEAL R. GROSS**

water -- and develop a set of general characteristics and associated ranges to bound the conditions of spent-fuel storage throughout the United States. Our analyses will also contain an assessment of spent-fuel pool leaks and fires.

We're presently in the middle of the scoping period, and we welcome your comments.

Thanks, Miriam.

MS. JUCKETT: Thank you, Paul.

And for our last presentation, we'll go to Andy.

MR. IMBODEN: Thank you.

My name is Andy Imboden. I'm the Chief of the Communications, Planning and Rulemaking

Branch. And before we get to question and answer, I wanted to take a quick minute to share NRC's plans for participation opportunities right now and over the next two years.

This slide has our preliminary schedule.

There's three main phases: the scoping period,

followed by a draft environmental impact statement

and proposed rule -- and there will be a public

comment period on those documents -- followed by a

final environmental impact statement and rule. We're

currently in the scoping period.

#### **NEAL R. GROSS**

Next slide, please.

Scoping goes until January 2, 2013.

It's a 70-day public comment period during which we are receiving written comments at any time. This evening, you have the opportunity to put your comments on the record.

After the scoping period closes, the NRC will collect all the comments, no matter how they were submitted, and the NRC will take these comments into consideration as we develop the draft environmental impact statement.

We intend to have regional meetings on the draft document. So in particular, we would like your feedback and input on where those meetings might be held.

At the conclusion of the scoping period, we will prepare a summary of the comments we received, including the significant issues that have been identified. And we will make this publicly available probably in the spring.

This slide shows the draft environmental impact statement and proposed rule. We estimate they will be available in the fall of 2013, and there will be another opportunity for public involvement then.

At that point, we'll be looking for

feedback and comments on the NRC's analysis and preliminary conclusions. During that time, we will receive written comments again and will have public meetings and webinars to get your comments on the record.

The final stage of the project will be the final environmental impact statement and rule.

And we estimate that will occur in August of 2014.

At that time, we'll also have the comments we've received on the draft and the NRC's consideration of those comments.

The next slide has details on how to submit scoping comments. I won't speak to the details, but if you're just calling in and don't have Internet access, please grab a pen.

Call us at 1-800-368-5642, extension 492-3425, and we'll get you the details and information you need.

On my final slide are just some of the other ways that you can get information on this project, track our progress and how you can stay in touch with our activities. For example, you will be able to access our slides and a transcript of tonight's meeting from these websites. The slides and transcripts from the November 14 public meetings

#### **NEAL R. GROSS**

23 1 are already posted in the Public Participation Section of this website. 2 Thank you for your consideration. 3 Miriam? 5 MS. JUCKETT: Thank you, Andy. Coming up in just a moment, we'll begin 6 7 our question and answer session where you are welcome to call in and ask questions to the NRC staff on 8 9 their presentations or on the scope of the EIS. If you have a slide in front of you on 10 your computer, you'll see the number and the pass 11 12 code to call in. If you are just listening, you probably are already on the line. But just in case, 13 that is 1-800-475-8385 with pass code 3682386. 14 15 I will also go ahead and introduce that our operator this evening is Anna. And we have Eric 16 17 Hendrixson, who is our court reporter who will be transcribing your comments and questions as they come 18 19 in. Anna, do we have any callers on the 20 If you would like to make a comment or ask a 21 22 question, press \*1 and we can add you to the queue.

Anna, do we have anyone on the line?

OPERATOR: I'm sorry. At the moment, we do not. But as a reminder, press \*1 if you have a

#### **NEAL R. GROSS**

23

24

question or comment.

1

3

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

MS. JUCKETT: Thank you. And we'll be glad to wait for those who may have questions who are dialing in at this time.

Anna, I see that we have a Mary Olson on the line. Can you add Mary to our conference call?

OPERATOR: Certainly.

Mary Olson, your line is now open.

MS. OLSON: Is this the time for questions?

MS. JUCKETT: Yes, Mary. Go ahead with your question.

MS. OLSON: Okay. I'm wondering, there's been a growing pile of technical kind of nerdy details about irradiated fuel. And I don't really know whether -- to what extent this is going to be an opportunity for those things to be factored I mean, I guess some of them actually do come under like the fuel pool issues. But I'm just wondering how -- how -- how deep into technical sort of arcane aspects of this material are you going to go, are you just kind of going with the -- it's going to be somewhere anyway and we're storing it this way. I mean, is this the opportunity to really start looking at new alternatives or just kind of re-

shuffling the same deck?

MS. JUCKETT: So, Mary, just to make sure we understand your question correctly, you're trying to find out how much technical detail will be included in the EIS that has to do with the fuel?

MS. OLSON: Yes. I mean, I'll just give you an example.

I only recently heard, and I've been focused on this stuff for 22 years, that I guess in '92 somebody published that pyrophoria of irradiated fuel cladding -- spent-fuel cladding -- doesn't actually subside after five years like I was taught years ago but in fact it's an ongoing issue. And so, it's like those kinds of levels of concern could engender some pretty novel and interesting new alternatives being considered for how we handle and store this stuff. But I don't know if this process is opening up those sort of new information categories or just looking as I say re-shuffling the same deck that we've got dry casks, we've got wet storage. That's it.

MS. JUCKETT: Okay. Thank you, Mary.

I'm going to ask Paul to try to address that question
on how much new information there might be and how
much old information we're planning on using.

1	MR. MICHALAK: We're going to use all
2	the existing relevant existing information in
3	developing the environmental impact statement. And
4	if I have this correct, Mary was talking about
5	potential spent-fuel pool fires. And that will
6	definitely be addressed as required by the Court in
7	the EIS. But we won't be doing any new research in
8	developing our impacts. We will be looking at the
9	breadth of existing work in spent-fuel pool fires.
10	MS. JUCKETT: Okay. Thank you, Paul.
11	Mary, did that answer what you were
12	looking to have answered?
13	MS. OLSON: It does. I'm beginning to
14	realize that there could be these fires in other
15	types of situations than just the fuel pools. So
16	that's where maybe I'll give you some comments.
17	MS. JUCKETT: Thank you. We would
18	appreciate those, and you're welcome to submit those
19	in writing as well.
20	MS. OLSON: We will be
21	MS JUCKETT: Great. Thank you.
22	Anna, I think our next caller that we
23	would like to hear from is Laura Sorensen.
24	OPERATOR: Laura, you line is open.
25	MS. SORENSEN: Hi. This is Laura.

1 I don't have a computer in front of me. The webinar didn't work. I couldn't see your slides. 2 I had a question. I think I heard him 3 say they'll be a separate action on the EIS for new licenses. Does that mean if, for example, the W.S. Lee has not been an issued a license, it's had a 6 draft hearing on the EIS? What happens now? Do the people -- are you going back to their town so they 8 9 can look at the spent-fuel and waste issues in their community more thoroughly because it wasn't discussed 10 in the prior EIS or a hearing in their town? 11 12 MS. JUCKETT: Okay. Thank you, Laura. I think Keith would like to respond to that. 13 MR. McCONNELL: Yes, the site-specific 14 reviews that are ongoing would continue up to the 15 point where a license would be issued. So the staff 16 17 will continue its reviews on those site-specific reactor licensing actions. But just the final 18 19 licensing won't be done. There will be no license issued until the Court's deficiencies are addressed 20 and the Commission has revised its waste confidence 21 decision. 22 MS. SORENSEN: I understand that. 23 24 MR. McCONNELL: Okay. 25 There's a delay for two MS. SORENSEN:

1 years on issuing a license. But the people in t his town never really had anything specific being told to 2 them about the waste that would be stored there in 3 their town for who knows how long. And there was no 5 discussion of that in their hearing. Are they going to get another hearing? 6 7 MR. McCONNELL: Not part of the 8 development of this generic environmental impact 9 statement. All of those activities would be done in the context of a site-specific licensing action. 10 Now we do in waste confidence address 11 12 that period of time from when an operating reactor ends its operations until final disposition in a 13 geologic repository. So for that aspect of specific 14 15 licensing action, that would be what we would address in terms of our waste confidence efforts. 16 17 Does that help? MS. SORENSEN: Yes. I think I'll 18 19 probably read what you said because I --20 MR. McCONNELL: Okay. MS. SORENSEN: -- it's a little hard to 21 hear. 22 But I had one more question was there 23 24 was a date you said something was going to happen in the spring. But then you said there will be regional 25

in the fall. You're having a draft EISs in the fall of 2013, is that what you said?

MS. JUCKETT: Yes, Laura. I'll let Andy address that. That was in his presentation.

MR. IMBODEN: Yes. Thank you.

In the spring, what we are planning on producing is a scoping summary report where we will show all the public comments that we've received and have some -- basically the NRC is going to put out a document so you can -- here's what we heard. That's going to be in the spring.

In the fall, there will be a draft environmental impact statement and a proposed rule. And we'll be in another public comment period on those documents. And as part of that, we're considering having regional meetings throughout the country to also have a means where people could come and present comments face-to-face with NRC staff.

And so, one of the things I'm in particular interested in is where should those meetings be because waste confidence is a generic issue. It impacts all parts of the country.

So if you have any specific comments on where we should have those meetings, we'd love to hear that.

#### **NEAL R. GROSS**

1 MS. SORENSEN: Are you limited to a 2 certain number of hearings? Or are you really open to hearing what's necessary, or have you picked a 3 number of how many you can have? MR. IMBODEN: We haven't picked a I think a reasonable number might be 6 7 something like four to six meetings around the country. But we definitely haven't settled on a 8 9 number or anything like that. We wanted to see what people thought 10 11 about that. So we're asking that question 12 specifically right now so we can plan what's reasonable. 13 Thank you very much. 14 MS. SORENSEN: MS. JUCKETT: And Laura, if you do have 15 Internet access at some time, you will be able to 16 access these slides after this webinar is over or at 17 another time. And the previous information that was 18 19 on the website does include things like the timeline and the dates and things like that. So hopefully --20 MS. SORENSEN: Yes. I have this screen 21 in front of me that says download complete, but 22 nothing is happening. 23 MS. JUCKETT: Okay. Well, I think we'll 24 25 try to get --

1 MS. SORENSEN: It's okay. We're past that point. 2 MS. JUCKETT: Okay. 3 MS. SORENSEN: Let's move on. Thank 5 you. MS. JUCKETT: Well, thank you very much 6 7 for your call. We appreciate your question. 8 Anna, next we would like to go to Tom 9 Rielly. 10 MR. RIELLY: Yes. Good evening. Tom Rielly, Executive Principal of Vista 360. 11 12 in the Chicago area. We'd like to advance a comment as 13 constructive a suggestion based on this webinar being 14 15 categorized as a generic scoping meeting, specifically for a waste confidence environmental 16 17 impact statement and that fundamentals and assumptions are important inputs at the front end. 18 19 Our suggestion is fundamentally generic, and we are seeking notation, not comment. 20 21 The term stakeholder as used or referenced in the NRC's lexicon doesn't seem to be 22 institutionally formalized by a clear definition 23 appearing anywhere granting that the term stakeholder 24

is cited universally in the narrative and appears

1 likewise in electronic and in printed form on a routine basis. Our organization, Vista 360, did a 3 reasonably comprehensive search on this term and came up empty. So we asked the NRC to assist us in a search which came up inconclusive also at the time. 6 I thank you very much for this 8 opportunity to participate. 9 MS. JUCKETT: Okay, Tom. And just to make sure, did you have a question that you wanted 10 the staff to try to respond to? 11 12 MR. RIELLY: It is a comment and a constructive suggestion. 13 MS. JUCKETT: Okay. 14 15 MR. RIELLY: If you care to comment, you I think we would be seeking just a notation of 16 17 our perspective at this time. MS. JUCKETT: Certainly. We'll be happy 18 19 to add that to the record. MR. RIELLY: So if we want to define the 20 formal institutional definition of stakeholder in the 21 narrative, I'm happy to hear. 22 MS. JUCKETT: Okay. We'll be glad to 23 take your comments. And that will go to the staff 24 25 for consideration certainly.

MR. RIELLY: Thank you very much.

MS. JUCKETT: Anna, next we would like to go to Ruth Thomas.

MS. THOMAS: Hi. I have a question about oversight.

Since I'm an elderly person, I remember back when we just had the AEC -- Atomic Energy Commission. And there were questions at the time that this didn't allow for oversight. But then it was -- I'm not sure what it was -- when it became the Department of Energy, but it seems like that the Department of Energy makes a number of what I would call faulty decisions. And so, it starts with the Department of Energy.

But I don't see where there's the oversight that's needed whether when you've got these materials that are involved. I mean, you've got materials that are manmade that don't exist in nature. They're new things that are still being learned about these and as I understand it, there's no -- no way to change or control the characteristics of these. I mean, they're going to go on for -- and on and on. It's a different type of pollution -- radiation -- radioactive pollution because it stays around so long. And it seems like there needs to be

#### **NEAL R. GROSS**

a study or an assessment or an estimate of how much - for example, how much plutonium there is in the
environment and in the air and in the soil.

Are we reaching the point where we're changing the environment so much? And also what doesn't get mentioned -- at least I haven't seen it mentioned much in the Nuclear Regulatory Commission documents is the cumulative effect and the fact that it -- radioactive materials concentrate in grass and fish and animals.

And so, I don't know -- it was mentioned in this Federal Register about having consultants unless it's been reading over the transcript, I certainly would recommend that we have consultants like Arjun Makhijani. I mean, he has such a full understanding of the whole process and -- well, I mean his testimony and his background. I read his qualifications. And when there are people like that that can contribute, it seems like we need to recognize this is going to take a lot of people, and it's going to take people that have not had that vested interest that keeps certain subjects from being fully explained and consideration given. And I've noticed that you have people testifying at these public inputs and they have -- you can see right away

#### **NEAL R. GROSS**

they have a favorable outlook. And what they say is not -- it's not from the standpoint of the public or it doesn't relate to what the mission of the Nuclear Regulatory Commission is which is protecting people and protecting the environment.

MS. JUCKETT: Thank you, Ruth. I heard several questions in there, and I'd like to go ahead and go to Keith to address some of your concerns.

MR. McCONNELL: Well, we'll try to speak to some of your concerns. If we don't touch on all of them, let us know.

Just to go back to the Atomic Energy

Commission, back in 1975, I believe, the Atomic

Energy Commission was split in two with NRC being one

component and the predecessor to the current

Department of Energy -- the Energy Research and

Development Administration -- were formed at that

time. And part of the reason for the split was to

make NRC's focus purely on the protection of public

health and safety and the environment while the DOE's

predecessor was in terms of promoting a nuclear power

as well as the weapons side of the program.

With respect to oversight, at NRC, the way we perform oversight is to the licensing process and our inspections of existing licensees. And as I

#### **NEAL R. GROSS**

noted in my slides, we have over 30 years of experience in overseeing the safe storage of spent fuel, both in pools and in dry cask storage.

In terms of the cumulative effects, those are usually addressed in terms of how dose limits are applied to the various licensing actions that we undertake.

And then the last comment I would try to address is that Mr. -- or Dr. Makhijani was at our first meeting and provided his input there. And I think he intends to provide written comments.

MS. JUCKETT: Thank you, Keith, for that.

And Ruth, I just want to make sure that we did address some of your questions. And also you've have additional opportunity to comment following a short break that we'll be taking in a little while.

MS. THOMAS: Well, I'm still on the line. And I want to follow up and say I think it needs to be a dialogue, not -- not commenting and then maybe -- I don't know -- hearing a couple months later or something. I mean, this -- this is -- I've been in this for a long time, and I'm 92 years old. And as I said in the other meeting, I'd like to see

### **NEAL R. GROSS**

something happening now that is different -- that's a different process because you spoke about licensing.

I know the difference, and I've taken part in a licensing process. They did work. And what it took was intervention. And it took lots of people and organization. It lasted four and a half years or more.

Now we don't have the time and the money and the energy to keep on doing that type of thing on every facility, every nuclear project that's planned. And that project was on reprocessing. And it was successful in that the reprocessing plant was never built and all this evidence came out as to -- that evidence wouldn't have come out if there hadn't been people there to dedicate their time and their energy to this.

And it's -- it's something wrong -something very, very wrong with what's happening.

And it's costing us money. It's costing us lives.

It's polluting our world. And there are things that keep people from saying something. There's nothing keeping me from saying what's going on. And --

MS. JUCKETT: And thank you, Ruth. We appreciate your concerns, and we're adding those comments to the record.

### **NEAL R. GROSS**

And I think we want to try to fit in a couple more questions during our Q&A period, and we'd be glad to hear from you again during --MS. THOMAS: All right. Thank you. MS. JUCKETT: -- our comment period. Thank you very much. Next, we'd like to go to Gregg Levine. MR. LEVINE: Hi, there. And thank you again for taking the time for this. I kind of wanted to ask what our basic assumptions are on the amount of waste that we have to account for in any confidence decision. Because yesterday I was listening in. I only caught the second half of yesterday's meeting. And I heard 170,000 metric tons of waste was sort of what we think we have to account for under any of the three scenarios you offered. And I understand the present amount to be somewhere between 62,000 and 72,000 metric tons being the spent fuel and whatever the DOE is also allowed to put into if and when we ever have a permanent waste repository. So I'm wondering what does this 170,000 Is that just existing, or is that existing

plants plus proposed plants to make and deposit over

a period of time? And in that case, what is the

1

2

3

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

window? Is that up until 50 years from now or 100 years from now? Does that amount include the return to sender stuff from the Atoms for Peace reactors?

Does that include the MOX programs?

So what is that number? How much are we supposed to develop a waste confidence decision and an EIS around and what's the time frame on that?

And related to that, I'm wondering if
the EIS will include transportation issues. Like, is
it just about a site, or is it about a site plus
moving any of the high-level waste to that site? And
will any of your scenarios include interim
centralized above-ground storage which has been
floated by the new Directorate as a possibility if
there is no long-term repository?

MS. JUCKETT: Thank you very much for that. And Paul will try to address the questions about the inventory, the transportation and interim above-ground storage.

MR. MICHALAK: Gregg, in terms of the inventory, I was corrected by my staff.

Consider the scenarios. One of the scenarios is assuming continued storage until the mid-21st Century -- 2050. That number -- the total volume that we're looking at is 150,000 metric tons.

### **NEAL R. GROSS**

1 And that's from the commercial fleet at that time --2050. For the second scenario at the end of 3 the 21st Century, right now we're going to assume 5 there's 270,000 metric tons that's being stored. So that's projecting out based on the 6 current commercial fleet. And we think it's a 7 conservative number -- maybe a bit of an 8 overestimate. But we think the 150,000 for the first 9 10 scenario or the 270,000 for the second scenario will bound what we believe would occur. It's a 11 12 conservative estimate. MS. JUCKETT: And did you want to 13 address transportation? 14 15 MR. MICHALAK: Transportation. Transportation will definitely be considered in the 16 17 environmental impact statement. Absolutely. And we are going to consider 18 consolidated storage -- ISFSI -- in the second 19 scenario and in the third scenario. First one, too. 20 All right. Right. That's right. 21 So we're considering an interim 22 consolidated storage facility all three scenarios. 23 MS. JUCKETT: Thanks, Paul. 24 25 Gregg, did that answer your question

	41
1	that you had?
2	MR. LEVINE: A lot of it. Could I just
3	ask if the assumption for the 150 and the 270 is
4	based on the 104, or by the end of the year, 103
5	current reactors? Is that including Vogtle and
6	Summer? Or is that including everything that's even
7	sort of a twinkle in the eye of the nuclear industry,
8	sort of earlier?
9	MR. MICHALAK: We think the 150, Gregg,
10	will be bounded by the existing fleet and what could
11	come online that we know about reasonably by 2050.
12	MR. LEVINE: So how many reactors do you
13	think that is above the existing fleet?
14	MR. MICHALAK: I don't have that number
15	in front of me.
16	MR. LEVINE: Great. Thank you.
17	Can I ask just one more quick thing or
18	wait for a second round?
19	MR. MICHALAK: Go for it.
20	MR. LEVINE: I'm wondering if the scope

**NEAL R. GROSS** 

of the investigation is allowed to include the ideas

of -- depending on how it is decided that we will

communicates with surrounding communities? Is it

store the inventory, is it allowed to include

something about how the plant -- the site --

21

22

23

24

allowed to address a monitoring regime and whose responsibility that would be and whether or not there are any reporting mandates based both on normal function and on possible accidents?

MS. JUCKETT: I think Keith would like to respond to that question.

MR. McCONNELL: Yes. Those aspects of the assessment would be done in a site-specific licensing process -- licensing either an independent spent-fuel storage installation or an active reactor storage facility.

MR. LEVINE: And does the site-specific licensing under -- so that's plants are up for renewal then. Would this assuming now that under a second or third scenario, there will be much longer-term storage on site than originally projected?

Would that require a more involved re-licensing procedure then because the storage will change considerably from the original license?

MR. McCONNELL: Well, the original license considers -- and the renewals consider licensing during the period of operation. The period between the end of operating license and disposition or removal from a particular site is part of the waste confidence decision effort that we have

### **NEAL R. GROSS**

underway now.

If you have particular comments that you'd like us to consider on these matters, please submit them.

MR. LEVINE: I guess in the interest of brevity, I would say that if we are going to consider second and third scenarios here, which I think are extremely likely at this point, that re-licensing should only be done with a robust plan for a hardened above-ground dry cask storage program. And that should be coordinated not just in terms of the technical but it should be included in environmental impact and evacuation issues which you have to consider in the safety part of the NRC's licensing program.

MR. McCONNELL: Will you provide those as written comments? We'll have them as verbal comments in the record here. But it wouldn't hurt to submit it as written comments also.

MR. LEVINE: I appreciate that. I will try to get you something.

MR. McCONNELL: Thank you.

MS. JUCKETT: Thank you very much,

Gregg.

MR. LEVINE: Thank you.

### **NEAL R. GROSS**

COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701 MS. JUCKETT: And for our final caller for the question and answer portion, we'd like to go to Norman Meadow.

MR. MEADOW: Hi. My name is Norman

Meadow. I'm calling from Baltimore, Maryland. And I

volunteer with a local environmental group called the

Maryland Conservation Council which to set things

straight is one of the few groups certainly locally

that has a pro-nuclear policy.

I have a couple of questions and then some things that are comments that I can perfectly well save until later. In fact, I plan to submit some written comments.

The first thing that I have in the way of a question is that in one of your introductory slides, you mentioned -- I think these were conclusions from the Court's decision -- that either an environmental assessment or an environmental impact statement would be acceptable. But in listening to some of the other webinars that you've had, I vaguely remember a question being raised about whether this EA or EIS can be generic or whether every individual nuclear power station has to be considered in its own impact statement or assessment. So that's one question.

### **NEAL R. GROSS**

My second question would be -- and I don't know whether there's anybody on the panel today who can answer this -- is that given the timeline that you presented in your introductory slides, do you anticipate that this effort is going to delay the issuance of any licenses either for new reactors or license extensions for existing reactors? Because if it does, my opinion of the whole Court decision becomes even more disapproval.

Actually along those lines -- and I don't know why the NRC hasn't done this -- but rather than calling this a waste confidence rule, why not call it a spent-fuel confidence rule? I think spent-fuel describes the material in a much more accurate way than the term waste.

The final question I have now -- and again this gets fairly deep into things. I don't know whether there's anybody there who can answer it. But I've been focused as far as the spent-fuel problem is concerned on a figure that comes from the Yucca Mountain environmental impact statement which even though it's 1,000s of pages long, I think is well summarized by one figure that -- right now, I have it as Figure 5-4. I don't know where it's found, whether it's in the EIS or the supplemental

### **NEAL R. GROSS**

EIS. But it's a figure that shows the annual individual dose to the maximally-exposed person from Yucca Mountain as a function of years from the time the repository is closed. And the time scale goes out for one million years. And it shows that the mean estimated dose occurs 400,000 years from now, and it's a little less than half the annual background dose in that region. Then there's another spike at about a half a million years. The 95 percent confidence intervals are somewhat higher.

My question is has anybody challenged those data because to me this graphs summarizes the lack of rationality of the whole controversy about Yucca Mountain -- why we should be determining our energy policy today on events that are estimated to occur in twice the length of time that humanity has even existed and involve doses that are pretty well acknowledged to be insignificant is a puzzle.

So I'm not sure I'm describing the location of this figure well enough. But the critical question for me is has anyone challenged the estimates which I assume were made by metallurgists, geologists and geophysicists.

Those are my three questions for the moment.

### **NEAL R. GROSS**

MS. JUCKETT: Okay, Norm. Thank you very much.

To address your first question about the generic site-specific issues, Lisa would like to speak to that.

MS. LONDON: Yes. And Mr. Meadow, if I get your question wrong, I'm going to repeat it just to make sure we're on the same page. Let me know.

I think what you had asked was why we elected -- why the Commission elected to do an EIS when the Court said an EA or an environmental assessment was sufficient. Is that correct?

MR. MEADOW: Well, no. I wasn't aware of that, but that's an even better question than the one I asked.

MS. LONDON: Well, that's good. Great.

While the Court found that an EA is an acceptable method, the Commission recognized that waste confidence always generates a lot of public interest. There's a lot of people that get involved and question waste confidence. And like I said, it just generates a lot of public interest. The Commission recognized this would be a vital matter for the public. And so, they elected to use their discretionary authority to instruct the staff to

### **NEAL R. GROSS**

conduct an environmental impact statement as opposed to an EA. Environment impact statement is a broader effort.

And so, that's what we've done. That's what we've started doing.

MR. MEADOW: Okay. But are you going to have to consider each of the -- I think it's 64 nuclear power stations individually? Or can some general principles be enunciated and then have them adapted to each site when issues arise at that site?

MS. LONDON: Well, as Paul had mentioned earlier in his presentation, we are basically putting in some bounding assumptions to try to capture the broad range of conditions that we would see throughout the country. We are not dealing with site-specific issues.

If a party feels that there is a sitespecific issue that is somehow not addressed by the
waste confidence rule and they seek to get redress in
an individual hearing, the party can file under 2.335
to bring to the Court's attention an individual
matter for a site-specific condition they feel was
not adequately capture in the waste confidence
ruling. But I think the basic message is that waste
confidence is a generic rulemaking.

### **NEAL R. GROSS**

1	Does that answer your question?
2	MR. MEADOW: Yes. Yes, it does. Thank
3	you.
4	MS. LONDON: Okay.
5	MS. JUCKETT: Okay. And to your second
6	question which I believe was on a delay in licensing
7	
8	MR. MEADOW: Yes.
9	MS. JUCKETT: Keith would like to
10	respond to that question.
11	MR. McCONNELL: Yes. There is the
12	potential for delays. Those delays are most likely
13	to occur for renewals. The impact on existing
14	operations is not significant in the sense that these
15	facilities would be in timely renewal and could
16	continue to operate.
17	We're less likely to have a significant
18	impact on any new builds or licensing new facilities.
19	MR. MEADOW: Okay. So you don't
20	anticipate any one any reactor would be denied a
21	continuation of its license to wait for this final
22	rule to be published?
23	MR. McCONNELL: They would not be denied
24	for this particular reason
25	MR. MEADOW: Okay.

# **NEAL R. GROSS**

1 MR. McCONNELL: -- for waste confidence. 2 Because the issuance would be contingent on other factors in addition to this waste confidence 3 decision. MR. MEADOW: Oh, yes. There are many You know, I'm not aware of anything that 6 seems to be close enough that 2014 would be a problem. But I wasn't sure of that. 8 9 MR. McCONNELL: Yes. There are two independent spent-fuel storage installations that are 10 in the renewal phase now -- the one at Prairie Island 11 and the one at Calvert Cliffs -- where the 12 environmental assessments have already been issued. 13 The final licenses and final renewals for those two 14 facilities wouldn't be issued until the Commission 15 makes its revised waste confidence decision. 16 17 MR. MEADOW: Okay. Okay. The reactors wouldn't have to shut down though? 18 19 MR. McCONNELL: Correct. 20 MR. MEADOW: Okay. Thank you. MR. McCONNELL: And the last question I 21 think although we may have people here that could 22 address that, I don't know that we're prepared to 23 address the details of the Yucca Mountain EIS in this 24 particular meeting. 25

1 MR. MEADOW: Okay. Yes, I realize. Ι 2 mean, it's something I really ought to try to 3 research myself. I just thought someone there might know whether the estimates have been seriously 5 challenged or not. Okay. Thank you very much. 6 7 MS. JUCKETT: Okay. I think we do have 8 several more people in the queue, and we're already 9 over our time for Q&A. But we'll go ahead and take 10 The next person on the queue is David 11 Agnew. 12 MR. AGNEW: Hello? MS. JUCKETT: Yes. David, you're 13 connected. David, we can hear you. Are you there? 14 15 I think we may have lost David. Let's go ahead and hear instead from 16 Julius Kerr. 17 MR. KERR: Yes, this is Julius Kerr. 18 19 Can you hear me? 20 MS. JUCKETT: Yes, Julius, you're connected. 21 MR. KERR: My question is two-fold. 22 Ι was wondering because of the possibility of an 23 accident if you couldn't require some kind of 24 25 distinctive visual die marker or like the natural gas

1 does there's an odor with the gas so that all the radionuclide emission releases become readily 3 identifiable as such in order to protect the public from this very real public health danger? 5 MS. JUCKETT: I heard one question in there, but I think Keith would like to go ahead and 6 address that. 8 MR. McCONNELL: Yes, there is quite an 9 extensive monitoring system around these facilities. While they aren't die markers, the inherent 10 monitoring that exists at these facilities is 11 12 sufficient to pick up any releases. So that's why die markers or something similar to that aren't used. 13 MS. JUCKETT: Did you have an additional 14 15 question, Julius, or did that answer your question? MR. KERR: Yes. I have a second 16 question, if that's okay. 17 18 MS. JUCKETT: Sure. Go ahead. 19 MR. KERR: I wonder if it could be required that the public be alerted via the news 20 reports like the pollen alerts to each release of 21 radiation from venting or fuel transfers or other 22 accidental or intentional or unintentional releases 23 of radionuclide emissions into our air, land or 24 25 water?

MR. McCONNELL: This is Keith McConnell 1 2 again. I don't have all the specifics, but 3 there are emergency procedures that power plants use 5 to alert the public in the event of a breach from that facility. It involves sirens and other 6 mechanisms to communicate. MS. JUCKETT: Okay. Thank you, Keith. 8 9 That wraps up our time that we have for 10 the question and answer session. We'd like to take a short, ten-minute 11 12 And we will come back on the line to continue to hear your comments at that time. 13 So if you would like to come back in ten 14 15 minutes, we'll reconvene at approximately 10:15 p.m. Eastern Time. And we'll be back at that time. 16 (Whereupon, at 10:06 p.m., off the 17 record until 10:15 p.m.) 18 MS. JUCKETT: Welcome back, everyone, to 19 the comment portion of our meeting this evening. 20 At this time if you would like to make a 21 comment, please call our 1-800 number and press \*1 22 and that will put you in the queue to make a comment. 23 Our first person in the queue is Diane 24 Diane, are you on the line? 25 D'Arrigo.

### **NEAL R. GROSS**

MS. D'ARRIGO: Yes.

MS. JUCKETT: Welcome.

MS. D'ARRIGO: Thanks.

 $\label{eq:Isomehow missed the first slide, but I} % \begin{subarray}{ll} I & \begin{subarray}{ll} Somehow missed the first slide, but I \\ \begin{subarray}{ll} don't think it matters for what I wanted to ask. \\ \end{subarray}$ 

that they'll be somewhere to send the waste from reprocessing from West Valley. They're planning now at West Valley which is the only commercial reprocessing that took place in the country although a portion of it was weapons. They're planning to take the solidified high-level waste out of the building that was used for reprocessing where it's been stored and put it in 50-year license -- well -- yes, casks that there's confidence will be good for 50 years on a pad on the road. And so, is there a portion of this process that you're going through, is it going to look at that as well as the irradiated fuel from the different reactors?

MS. JUCKETT: Okay. Thank you.

MR. McCONNELL: This is Keith McConnell.

I think you're talking about the vitrified waste that still exists at West Valley that they're moving out of the processing building so they can decommission the processing building.

### **NEAL R. GROSS**

1 That material is now managed by the 2 Department of Energy. 3 MS. D'ARRIGO: Right. MR. McCONNELL: It would become material 5 that would go to a geologic repository. But while it's managed by the Department of Energy, that would 6 be the Department of Energy's responsibility. Should 7 the license revert back to the State of New York, 8 then the disposition of that material would then 9 become an NRC actionable activity. 10 MS. D'ARRIGO: Well, what you're doing 11 12 here though is you're looking at -- isn't this scoping to deal with the confidence that the Nuclear 13 Regulatory Commission has over -- confidence that you 14 15 have that there will be somewhere to permanently I guess dispose of this waste -- of the waste from 16 17 nuclear power? Is that right? MR. McCONNELL: What we deal with is 18 19 that the storage of spent fuel between --MS. D'ARRIGO: Waste confidence decision 20 is only on the irradiated fuel then? 21 MR. McCONNELL: Well, I think you ask a 22 good question. And I think it's a question that we 23 need to go back and think about. 24 25 And I don't know that we have the answer

tonight. But we will have the answer on terms of whether vitrified waste that is a commercially-licensed activity is included.

MS. D'ARRIGO: Yes. I mean, 40 percent of it was commercial irradiated fuel and 60 percent was from AEC activities. And the people around western New York were thrilled to have DOE come in and try to make the reprocessing liquid into a solid so it wouldn't leak out. And now, they've got it. Yeah, it's in a solid. But it's being put in casks that are not going to last as long as it's hazardous and set by the roadside to -- and there's not even going to be any kind of wait or plans for recontainerizing it and then DOE wants to leave.

So my concern is that they're going to do this transfer taking it out of a shielded area where it's got better shielding than it will at the road in the canisters and that we don't have -- I don't have confidence -- not that I trust the old waste confidence decision before -- but trying to see if the NRC's claiming it's got confidence over this reprocessing waste.

MR. McCONNELL: I mean, we'll take your comment. We're outside of the question and answer period. But the one thing I would --

### **NEAL R. GROSS**

1 MS. D'ARRIGO: Yes. What are we in now? 2 I missed the beginning. 3 MR. McCONNELL: The comment period. question period was before and now we're in the 5 comment period. But let me just speak to one issue -- I 6 quess there were two -- one that this vitrified waste 7 is going to be stored in a facility that is not next 8 9 to the road. It is off the road a substantial distance. 10 MS. D'ARRIGO: Well, now it's in a 11 12 shielded building that's far from the road. But they're going to move it to a pad that they're going 13 to put and there's not going to be any building over 14 15 There's no structure. You can call it a facility, but it's just dry casks. 16 17 MR. McCONNELL: Correct. And those dry casks are certified by the NRC. So just like an 18 19 independent spent-fuel storage facility, those facilities are safe as long as the material is stored 20 correctly and handled correctly and consistent either 21 with NRC regulations or DOE orders. 22 MS. JUCKETT: And Diane, I think we also 23

are interested in getting these comments. If you

have additional comments in writing, you're welcome

24

to submit them as well.

And Anna, I think we have several other people in the queue who would like to make comments.

And I just want to go ahead and remind all of our callers that if you press \*1, that will put you in the queue to make comments.

And at this time, we're taking comments that are being transcribed and these will be considered with equal weight to any written comments. But we also welcome your written comments to be submitted online as well.

The next person we had in the queue is Mary Olson again.

Mary, would you like to make a comment?

MS. OLSON: I would.

We will -- Nuclear Information Resource Service will be doing written comments and hopefully not very long from now.

But this is sort of more of the Mary
Olson comment. And I kind of threw it on this on the
14th, but I'm going to go back here because to some
degree every organization exists in a topological
state because it has have a little bit of identify
that it maintains and a set of rules and what you
call that homeostasis and all that stuff sort of you

### **NEAL R. GROSS**

kind of get into these circular arguments. But tonight, I really want to say as a direct comment that there's a difference between compliance with NRC regulations and environmental impact.

I think there's a big discussion in my community right now about whether to stay focused specifically on irradiated fuel because we believe strongly that there's a difference between the fuel pool and dry storage and we'd really love to see the Agency have enough support for making that differentiation and beginning to really grabble with the safety issues on the site and understand that at Fukushima the dry casks did pretty well. I can't say they did perfect because I haven't seen an inspection report. But they didn't blow up, and they didn't burn, and they didn't take massive amounts of liquid to cool them. And so, golly, that's pretty good compared to what we saw happen with the fuel pools in the Courts.

So we really want to go there with you and be on that page. But I also need you to really stop and understand that you're going to do so much better in this process if you actually look at environmental impact versus just plain compliance with your regulations.

### **NEAL R. GROSS**

And I heard you do it tonight. Mr. Kerr asked you a question that quite frankly, I don't know how technically feasible it is to put smell or color in radioactivity. But his question was about routine releases. It wasn't about accident-level conditions.

And you said you monitor or a licensee monitors. We don't have access to that information. We don't have anywhere in the United States real-time monitoring available 24/7 online. We could. It would make a huge difference. What a public relations move that would be if in fact there's no problem. Right?

So if there is a problem, wouldn't it be great if we could all know it, too? I mean, this is where you have to kind of step outside your comfort envelope of needing to look like it's altogether and be willing to actually step in a little bit.

And I'm not going to go on and on, but I want to say that in my view, you do not have nuclear fuel without the nuclear fuel chain. And NEPA is the one place where the federal government's actions are supposed to look at all of the consequences, all of the impacts, no truncations, no separations, no cutting off this part over here that's causally related.

### **NEAL R. GROSS**

So I'm not sure how many times you're going to hear this but I'm going to say it tonight. you can't really look at an environmental impact of waste storage without looking at environmental impact of waste generation, and you can't look at that without fuel generation, and you can't look at that without the whole fuel chain. It's all kit and caboodle, right?

And that's why NEPA is the way it is because our life is that way. Our environment is that way. Our resources are that way. Our water and our air and the rest of the comments that we share are that way. And you are privileging corporate citizens with a "right" to create this stuff. What does it really mean? That's the environmental impact statement that would be revolutionary. You would have an amazing career recognition if you would actually do that. I mean, that is so needed.

So I know you're not setting off to do that. You're setting off to meet a two-year timeline and make the Court happy hopefully. But please, don't look at compliance. Look at impact. And one of the key impacts that nobody's looking at is the disproportionate effects of radiation. Maybe it's an appendix. Maybe it's we don't know the causation but

### **NEAL R. GROSS**

1 there's evidence. Maybe it's I don't know what. But if it's silent, oh, my God, oh, my God. We know children are impacted many times 3 more. We now have strong data showing that little 5 girl children are twice as impacted as little boy children. We know that elders are more impacted. 6 7 That disproportionate impact is a reality whether your regulations reflect it or not. But you 8 9 are not doing compliance here. You are doing impact 10 here. So I'm going to stop and say yes, you'll 11 12 get more in writing. But in my humble opinion, this is a watershed moment. And how you play these cards 13 truly impacts the ability of this industry to 14 15 function as a credible and upright citizen or to be revealed that that's just plain not a possibility 16 given the reality of this stuff that it makes. 17 Thanks. 18 MS. JUCKETT: Thank you very much, Mary. 19 We appreciate your comments. 20 Next on the line, we have David Agnew 21 that has joined us again. 22 David, can you get through to us this 23 time? 24 25 MR. AGNEW: I hope so. Yes. Can you

hear me?

MS. JUCKETT: Yes. Perfect. Great.

MR. AGNEW: Okay. I managed to hang up instead the last time.

Well, so it's just as well that I missed the questions because I mostly have comments.

MS. JUCKETT: Great.

MR. AGNEW: The topic being rad waste.

That means that we're considering a hazard that will last for many thousands of years. I think given that, the term waste confidence is an oxymoron. If there were confidence, we wouldn't be putting fresh, high-level waste into temporary pools.

We're seven decades into too cheap to meter, and nobody knows what to do with this toxic waste that we're generating daily at 65 site and more around the nation.

I live near a Mark I reactor that's on the flight path for a major airport. There's no airspace restrictions. The only thing between a 747 and a spent fuel pool is a tin roof. I have no confidence that it's safe.

The public comment on the scoping process I understand goes until January 2nd. That's less than a month away. That strikes me as a sick

### **NEAL R. GROSS**

joke. This is a busy time of year for many people.

If you actually expect public involvement, you should extend that comment period for several months.

Let's see. Two years to complete the generic environmental impact statement is far too short. My understanding is that NRC staff has said that it would take seven years to do the job properly. I believe that all relicenses that have been issued should be rescinded pending compliance with new standards. According to the way the NRC works, people -- operators -- licensees whose license is out of date get to continue operating anyway. So that shouldn't be a problem for your industry.

Certainly no new licenses to generate more radioactive waste should be allowed given that we don't know what to do with it and you're trying to rush through this process of figuring out what can be done with it.

And any analysis that is done for the GEIS should include sabotage, terrorists' acts. It should include leaks from spent-fuel pools, those current and future leaks.

I guess in short I concur with the 92year-old woman who asked for a different process. I feel that the current NRC process for public

### **NEAL R. GROSS**

involvement has been carefully constructed to exclude the public while giving the appearance of openness. People would have to be wealthy to participate. They have to hire lawyers or be lawyers. And even then, they don't have much of a chance. Highly technical, highly legal.

And I'll just close I guess by making a rhetorical question since it's not the question period. And that is that I heard earlier that there would be no new research regarding spent-fuel pool fires, and I would ask why not. We're planning something for tens or hundreds of thousands of years. Why not continue to do research?

That's it. Thank you.

MS. JUCKETT: Thank you very much,

And one of our presenters -- Paul -- would like to actually respond to that.

MR. MICHALAK: David, what I meant to say is in this effort, this isn't a research effort. But there is research underway and analyses underway at the Agency concerning spent-fuel pool fires.

But this particular action is not a research action. We're going to look at the existing record and take relevant information and apply it to

### **NEAL R. GROSS**

David.

this environmental impact statement.

MS. JUCKETT: Thank you, Paul, for that clarification.

Next on the line we have Laura Sorensen.

Laura, can you connect through to us?

MS. SORENSEN: Hi, this is Laura.

MS. JUCKETT: We can hear you. Go

ahead.

MS. SORENSEN: Okay.

I remember a while back sitting at the first EIS hearing in Gaffney, South Carolina, and it was concerning the new licensing of the W.S. Lee Nuclear Station. And that was my first hearing.

And the NRC staffer said they had received some feedback and complaints about their relationship to citizens. And they did an official report analysis by an NRC staff person who worked on that probably -- I don't know -- you probably know -- maybe a year and compared the NRC's relationship to the industry, the utilities, the Congress and citizens. And the official concluded that the NRC's relationship really was lacking seriously in communication.

And I feel like I'm sitting here experiencing that conclusion. I think it's

### **NEAL R. GROSS**

disregarding and insulting for the NRC to expect the average citizen to respond to a scoping process on the nuclear waste issue in 20 days to the November 14th hearing when the NRC and our federal government hasn't responded to it for over 50 years in our mind.

In addition, we're expected to attend that hearing, no expenses paid. We all have jobs and homes. We live far away from where the hearing is.

So if we can't do that, we have to navigate a technology that's really unfamiliar to the average person. But it's everyday business to the NRC.

But I'm a mom, I'm a grandmom. And I have to speak for the future and the future of humanity.

It's not if we have a nuclear accident and the spent fuel is affected. It's when and where. And I really pray for the people exposed to this horrific technology. And that's why I'm having my civic duty here in sharing the comments in this process.

I know that the Court ruling says that this can be generic. I'm asking the NRC -- I think you know why it shouldn't be. I think you understand that each reactor has a different situation. They each are a different age. Some are on the ocean.

### **NEAL R. GROSS**

Some are on a river. Some are cooled with a lake. There's climate issues in different parts of the country. There's temperature. There's weather patterns and storms. There's fault lines. And the effects of global warming. And then we have evacuation issues that are different for different populations. And we have the issue of how many reactors are there in one area, for example, Charlotte, North Carolina. They've got many reactors just within 70 miles. And I know up north some of those are even bigger numbers.

The next issue would be with the spent fuel that's in the fuel pools, these are packed over capacity. There needs to be a very strict, clear in the EIS how many are you allowed to have in there.

And it needs to be strict and you can't go over it.

That's it.

And there needs to be in the EIS a list of scheduled inspections on those pools -- the dates for each sight of when they're going to be inspected with a timeline that's very reasonable for safety.

The next point is the safest solution to the storage of the waste is to stop making it in the first place. It's proven that there isn't anywhere safe for it. Nobody wants it in their backyard. And

### **NEAL R. GROSS**

there's been so much arguing about it. So let's just stop making it and deal with what we have.

Also, of course, the leaking and contamination in the groundwater. I don't think those reports are really -- it seems like the response to that has always been well, it's safe levels. We never get a report of well, what do you mean by that. What are the numbers and what are the markers that we're going by? And who invented those markers and what's really legal with that? And who are we listening to?

Also the issue of reprocessing, it's never solved a waste issue in any country. It creates more waste at a high price, both financially and environmentally. We don't need to reprocess.

And then there's the issue of we're keeping this spent fuel there so long. What is the structural wear and tear of the storage and the maintenance and the inspection schedules?

And I think also the dry cask storage needs some help, for example, the effects of the earthquake at the North Anna Nuclear Plant. It actually moved it some inches. And that's why that site specific is really important because you may not have earthquakes in one area and if you know dry cask

### **NEAL R. GROSS**

storage is accessible to that, it needs to be looked at. And of course, there needs to be the advances in the hardened on site storage.

And then finally I just want to say the decision process creates radioactive substances that do not exist in nature. We cannot change the length of time they need to be isolated from the environment. And we can't change the health effects that radiation has on human beings. There's no cure for that. The NRC must operate by the scientific rule of thumb. There is no safe dose of radiation --period. If nuclear power and waste was safe, we wouldn't be discussing this matter. We wouldn't have court orders. We wouldn't have scoping hearings. We wouldn't have EIS statements. We would just stop making it. And I think it's time to stop making it.

MS. JUCKETT: Thank you, Laura, for your comments.

And next on the line, we have Diane D'Arrigo again.

MS. D'ARRIGO: Yes. I just want to say that I think there should be more than three or four hearings on this issue. I think that there should be hearings at every reactor site and every proposed

## **NEAL R. GROSS**

storage area if the people in those communities want it -- want to have a hearing. And certainly the listing those that would like to have it, but I'd like to say that three or four is not enough. MS. JUCKETT: Okay. Thank you, Diane, for that comment. If you are joining us on the line and you would like to make a comment, press \*1 to be added to the queue to make a comment. And Anna, do we have anyone else on the line at this time? OPERATOR: We have no one else in the queue. But a reminder, you may press \*1 at any time. MS. JUCKETT: Thank you. And the staff will be happy to wait until the midnight end of this webinar to ensure that we do get a chance to hear all of your comments. And as you may have heard in some of our previous meetings, we have several topics that were of interest to NRC staff to hear from. Some of them were questions about what should be included and the scope of this EIS, as well as where we may benefit -where you would benefit from regional public meetings

So again, if you're joining us, press \*1

### **NEAL R. GROSS**

when those are held during the draft EIS phase.

1

3

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

to make a comment. And I see that we have some additional people on the line.

Julius, welcome. Please make a comment.

MR. KERR: Yes. This is Julius.

I think since you're doing this scoping program for the waste confidence rule, you really might want to look at the transportation issue that's already taking place across the United States.

And I agree with the comments made earlier. Any exposure to radioactivity -- no matter how slight -- boosts your risk of cancer. And that's according to the National Academy of Sciences. So we know that the radioactivity is dangerous -- very dangerous.

The nuclear waste shipments cannot be made safe. And the NRC, I'm sure, is aware of this. And they need to generate more regulations. If they are monitoring the waste casks, they'll know because there's going to be gamma radiation emitted from these things. And it's going to allow a certain amount of neutrons to be emitted from the shipping casks during routine operations and transportation.

Even without a transport accident -- I know we've been doing it for over 30 years; the gentleman spoke about that earlier -- the people are

exposed to this ionizing radiation from the nuclear waste shipments. So whoever made the nuclear waste should keep the nuclear waste right where it's at and not expose the public by transporting from here to there. There's no reason for that. The casks radiate radiation, and they're very, very dangerous. And I know you guys know that because you say you're monitoring it.

And I hope you'll make some stronger regulations that are really going to protect the public. That's the mission statement of the Nuclear Regulatory Commission to protect the public and the environment. I want to see you guys do it.

Thank you for allowing me to speak.

MS. JUCKETT: Thank you, Julius. We appreciate your comments.

Next on the line, we have Ruth Thomas.

Ruth, welcome back. Please feel free to make your comment.

MS. THOMAS: Thank you.

When I hear people talk, they do it so well and I'm not very good at that. But I'm better at writing and researching. So I'm going to be sending in -- and one of the sources that I want to have used are the 30 -- I don't mean the whole 36

#### **NEAL R. GROSS**

2 that witnesses gave under oath are sent in that this documents what we're saying. 3 And as it happened, we -- our 5 organization -- Environmentalists, Incorporated -didn't have much funding. So I did some of the 6 cross- examination. In fact, I did all of the cross-7 examination on transportation. So I agree with the 8 9 importance of this subject, and I'm going to be working with other people in submitting this 10 information -- this evidence -- and looking forward 11 12 to it being used because it hasn't been used at any time that I know of, and I've looked at a lot of 13 environmental impact statements. 14 15 Thank you. MS. JUCKETT: Thank you, Ruth. 16 17 And for those of you who may just be joining us --18 19 MR. MICHALAK: For Ruth, we were curious as to what 38 volumes she was referring to. 20 MS. JUCKETT: Ruth, are you still on the 21 line with us? 22 OPERATOR: One moment and I'll retrieve 23 her line. 24 25 Thank you. MS. JUCKETT:

volumes -- but excerpts from them where the answers

1 OPERATOR: And Ruth, you're open again. 2 MR. MICHALAK: Ruth, did you hear? is Paul Michalak. 3 We were curious which 38 volumes are you 5 referring to? MS. THOMAS: What was that? 6 7 proceeding? 8 MR. MICHALAK: Yes. MS. THOMAS: It was the Allied General 9 Nuclear Services reprocessing plant. It's docket 50-10 332. And I don't know. I may sound angry. But it 11 12 isn't that I'm angry. It's that I -- well, I just want to do more than I'm doing. And I find I can't 13 do as much as I used to. 14 MS. JUCKETT: Well, Ruth, we appreciate 15 you taking the time to talk to us today. And thank 16 you for coming back on the line to make that 17 clarification for us. 18 19 And so that those who are just joining us know, you are welcome to call and make comments 20 21 this evening. We are keeping these lines open until midnight Eastern Time, 9:00 o'clock Pacific Time. 22 And you can press \*1 to be added to the queue to make 23 a comment. 24

NEAL R. GROSS

And we'll also be welcoming comments in

written form through Regulations.gov as was presented in the presentations earlier.

Anna, do we have anyone else in the queue at this time?

OPERATOR: Yes, we do. It looks like Gregg Levine.

MR. LEVINE: Yes. Hi. Thanks again.

I guess I would ask that if there was some way to incorporate into the waste confidence decision process and the EIS, the Post-Fukushima

Near-Term Task Force support recommendations and some of the additional recommendations made in hearings after the MTTS.

I'm thinking specifically I remember an interview with the former Commissioner Jazcko where he was talking about extending the expected life of dry casks 100, 200, perhaps 300 years on site. And I think he was doing that partly based on the fact that yes, after the Tohoku quake, they seemed to survive better than the pools. But I think also he was saying without any particular research assumptions -- research evidence -- about the actual survivability of current cask technology. So I think that while I appreciate I think too dry casks are a better option than fuel pools for no other reason than they don't

#### **NEAL R. GROSS**

require a power source to keep water flowing through them, I think that you need much more research and you have to take that into account when you're looking at scenarios for long-term, on site storage.

I would also ask with that in mind that perhaps it's examined that we roll back re-racking permits for the pools that in some sort of generic environmental impact or generic licensing guideline overall that we mandate a decreased density of spent fuel in the pools because one of the problems is that these pools were originally designed -- I believe -for less fuel in them than they have now so that if for some reason there's a power interruption or a loss of coolant accident, pools heat up more quickly or lost their cooling water more quickly exposed the cladding to air more quickly and thus run the risk of fire more quickly and that survivability of or the safety parameters of pools indicates that accidents could be lengthened a little if we would bring the quantity of fuel in the pools down. So I think there should be some sort of consideration in the ruling that would force plants to move fuel out of pool storage into dry storage. And I also think that we need to mandate a better form of onsite dry storage.

**NEAL R. GROSS** 

MS. JUCKETT:

1

3

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Thank you, Gregg, for your

1 comments. We appreciate that. MR. LEVINE: sure. 3 MS. JUCKETT: Anna, is there anyone else on the line at this time? OPERATOR: Not at this time. MS. JUCKETT: As a reminder to those who 6 are on the phone, if you would like to make a 7 comment, press \*1 to be added to the queue and the 8 9 NRC staff will be happy to listen to your comments. And since we don't have anyone else in 10 the queue at this time, we'll continue to wait here. 11 12 Again, press \*1, and you can be added to the queue to make a comment. 13 I believe we have Tom Rielly on the line 14 who's just joined us. 15 Tom? MR. RIELLY: Yes. Thank you. 16 17 Earlier there was a reference by one of the presenters relative to having follow-up meetings 18 19 of a regional, city, reactor-based location. there was a request for assistance or input relative 20 to possible locations. We'd like to participate in 21 that and wonder if the staff member could provide us 22 a contact information. 23 MS. JUCKETT: Yes. Andy will address 24

that.

1	MR. IMBODEN: Yes. I mean, you could
2	tell us right now.
3	MR. RIELLY: It would take some work.
4	MR. IMBODEN: Yes, okay.
5	MR. RIELLY: It was a challenge, and we
6	accept the challenge.
7	MR. IMBODEN: Okay. And you're more
8	than welcome to submit that through Regulations.gov
9	on the docket.
10	MR. RIELLY: Regulations.gov. Okay.
11	MR. IMBODEN: And you could search for
12	waste confidence or type in the docket number. You
13	could submit by mail or by fax that information as
14	well.
15	MR. RIELLY: And that information is at
16	the that's at
17	http\\www.NRC.govwaste\spentfuelstorage.wcdhtml?
18	MR. IMBODEN: That's correct. And for
19	those of you on the computer, we have that
20	information up right now on the webinar.
21	MR. RIELLY: Okay. Thank you very much.
22	MR. IMBODEN: All right. Thank you.
23	MS. JUCKETT: Thank you, Tom.
24	Anna, do we have anyone else in the
25	queue right now?

1 OPERATOR: At this moment, no. But a 2 reminder, you may press \*1. MS. JUCKETT: And again, the NRC staff 3 will be here until Midnight Eastern Time, 9:00 p.m. West Coast Time to hear your comments. If you would like to call in, there's an 800 number to call, and 6 you can press \*1 to be added to the queue to make a comment. 8 9 And again, for those of you have may not have been on the line for t his entire conference, 10 11 the NRC staff is interested in hearing several issues such as what should be included in the scope of the 12 EIS as well as where public meetings should be held 13 for the draft EIS in regional public meetings. 14 15 you have comments on those topics, please feel free to call and make a comment. 16 Additionally, we'd be interested in 17 hearing how NRC can improve their outreach and 18 19 whether there are additional venues that the public 20 would like to see the NRC use for better communication. 21 We have Julius joining us again. 22 Julius, welcome back. Your line is open. 23 A friend of mine just 24 MR. KERR: Yes.

**NEAL R. GROSS** 

came in and would like to make a comment.

25

Is that

okay?

MS. JUCKETT: Sure. Please introduce yourself. We'd appreciate that.

MS. WYRICH: Hello. My name is Lilly Wyrich. And I just came in and have been listening to this conversation. And I'd like to address environmental justice.

MS. JUCKETT: Sure. Thank you, Lily.

Go ahead.

MS. WYRICH: I think we've forgotten environmental justice because I'm hearing about how these people are struggling with the system that you've set up for them. And for me, I have to say I don't have a computer. I don't have a television. I don't have Internet access. And I'm just wondering how I'm supposed to take part in these discussions. I didn't even know about it.

And it worries me because I'm close to a nuclear facility. And I'm just beginning to understand the dangers of it. And I think that I'm being left out.

And I pray that you will think about people like me who don't know what's going on. And I heard you say that people are made aware of problems that there are alarms that go off, that people are

1	told. But I don't think that's right. And I think
2	if you talk to people who live near nuclear
3	facilities, they're not aware of it, and I think you
4	need to investigate how much people are reached
5	because there's an environmental injustice going on
6	here. And I'm just glad that I came in tonight to
7	hear this and that Julius let me speak.
8	So please take it seriously that the
9	people that need to know, the poor people that don't
10	have access to the complicated systems that you're
11	using, they're the ones you need to reach.
12	So thank you for listening to me. And
13	God bless you.
14	MS. JUCKETT: Thank you, Lily. We
15	appreciate it and we're glad you could join us.
16	And Andy Imboden, one of our staff
17	members, would like to talk to you.
18	MR. IMBODEN: Hi, Lily. My name is Andy
19	Imboden.
20	Do you have a pen and a pencil? And
21	Operator, if you could revive her line.
22	MS. WYRICH: Yes.
23	MR. IMBODEN: Okay. Can you hear me?
24	MS. WYRICH: Yes, I can hear you.
25	MR. IMBODEN: Okay. We've established a

1 1-800 number that I'd like for you call to get any information that we can get to you. Are you ready? 2 3 MS. WYRICH: Yes, I'm ready. MR. IMBODEN: Okay. It's 1-800-368-And it's extension number 492-3425. And if 5 5642. you call during what are business hours on the East 6 7 Coast, there should be somebody who could get you what information you need. 8 9 MS. WYRICH: Thank you very much. 10 MR. IMBODEN: All right. 11 MS. JUCKETT: Thank you, Lily. And 12 thank you, Julius, for allowing her to comment through your line. 13 And next on the phone we have Gregg 14 15 Levine. Gregg, would you like to make another comment? 16 17 MR. LEVINE: Well, yes. I've been sitting here. I've had some time to think, and I 18 19 appreciate you guys taking the time. 20 It had just occurred to me that based on the waste projections of 150,000 metric tons by 2050, 21 275,000 by the end of the century that we are many 22 times over exceeding the original cap for Yucca. And 23 I think that was at 70,000 metric tons. So that if we 24 are going to put together scenarios for storing waste 25

long term, we have to assume not one, not two, but three different approvals for three different long-term sites assuming that's part of -- honestly, not politically or fiscally reasonable at this point. I mean, I can't imagine us getting three. But really your scenarios, if you're going to include the idea of a long-term centralized repository has to include three of them. And that's not including -- if I understand this -- DOE waste. It's not including return to sender from Atoms for Peace plants abroad. And I guess not including anything that comes out of say re-started MOX or reprocessing programs. And so I think that needs to sort of be factored into waste confidence which is that we've got to come up with a way to account for three Yucca Mountains or sites.

And I guess the other comment I'd make would be just to second something I heard earlier. The woman from NIRS talked about real-time, online access to monitoring. And I can't second that strongly enough. As a person who tries to write and inform and talk right speak about these issues to people have found it incredibly hard to get the most basic sort of information. And if we are going to not only store more spent fuel at the sites but possibly develop interim sites and then also have to

#### **NEAL R. GROSS**

move radioactive fuel between different sites, I
would love it to be able to just answer the need-to-
know questions. And if there really is minimal
danger to the public, then the amounts of
environmental radiation so you say monitoring's
just something that's classically off gas or
strontium levels can be up like one marker element
that measure that I can then report on so that people
can get a sense of what the sort of daily operation
loads are for these sites, what their burden is if
they live ten, 20, 30 miles outside one of these
sites. I would love to see that. I don't know
if that comes under waste confidence or it comes
under EIS or it comes under individual site
licensing. But I think the NRC needs to find a way
to regulatorily require the industry to make this
information available. It's what government should
do for people.

I guess those are my comments.

MS. JUCKETT: Thank you very much,

Gregg.

MR. LEVINE: Certainly.

MS. JUCKETT: And for those of you who may be joining us on the phone, if you press \*1, that can add you to the queue to make a comment. The NRC

staff is standing by to hear your comments for the next hour.

And again just to remind you, the NRC staff has posed several questions that they're interested in hearing feedback on such as what should be included in the scope of the EIS, where it would be helpful for the public to have regional meetings held during the draft EIS phase and what other means of communication the NRC can use to better engage stakeholders.

We've heard several comments from people on those subjects. And NRC staff is interested in hearing more comments as you may have them.

We have Bonnie Bluestein on the line. Bonnie, welcome.

MS. BLUESTEIN: Thank you.

I'm going to ask about that 800 number that was just given out. There was a woman who was saying she was near a nuclear power plant and she wasn't getting information. And I was wondering is it possible to get any kind of the information that we were discussing earlier -- the monitoring -- to know if there's a leak, what kind of level of leak is happening or any of the real-time information that people are inquiring about. Because I was downwind

#### **NEAL R. GROSS**

of many nuclear power plants and occasionally I will hear on the news there was a leak -- an airborne leak or recently there was a plant that leaked a couple times. And I would just like to know as a citizen that was downwind of so many power plants if it leaks -- any of them leak -- I'd like to have the information what the leak comprises. And I was wondering if anybody could tell me if that 800 number would provide any of that kind of information or if there's a way to get the information. I know there's a radnet or something like that that I believe the EPA has. And I don't know if it's actually working. I know after

Fukushima I was trying to look at it. It didn't seem like there was any information that was working on that. And that's my question.

MS. JUCKETT: Okay. Thank you, Bonnie. I think the NRC staff would like to respond.

MR. McCONNELL: Yes. We don't have that information right here. But if you call the number that Andy mentioned, they can direct you to people who would address your issue.

And Andy, do you want to give the number now?

> I would like to MR. IMBODEN: Yes.

#### **NEAL R. GROSS**

1

2

3

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

repeat that.

It's 1-800-368-5642. And that's a number that calls into the NRC operator. So if you know a further extension, you could do that. But the extension to the waste confidence environmental impact statement in particular is 492-3425.

MS. BLUESTEIN: And what kind of information would I get from just any of these?
Would I be able to get the answers to anymore questions regarding what you're discussing tonight then from that specific extension number?

MR. IMBODEN: Yes. Or if you have other documents that you're having a hard time accessing or something like that, you'll talk to an NRC staff at that number, and we'll get that to you.

And if you have another question on another issue, we'll do our best to find out how to put you in contact with the right person in the Agency.

MS. BLUESTEIN: Okay. Thank you.

MS. JUCKETT: Thank you, Bonnie.

Anna, is there anyone else in the queue at this time?

OPERATOR: At the moment, there is no one else in queue. But as a reminder, you may press

1	*1 if you would like to make a comment.
2	MS. JUCKETT: Thank you.
3	Just a reminder to those of you who may
4	be on the line, if you haven't already called in to
5	make a comment, you can press *1 to be added to the
6	queue to make comments. And even if you have already
7	made a comment, if you do have additional comments,
8	we have time this evening since we are going until
9	Midnight Eastern Time, 9:00 p.m. West Coast Time.
10	Ruth, I see that you have joined us
11	again. Welcome back.
12	MS. THOMAS: The reprocessing plant, so
13	I was wondering if they wanted to know more about it
14	if I could give my mailing address. Would that be
15	all right?
16	MS. JUCKETT: I think it would be
17	helpful for the staff if you would submit that to the
18	contact number that was just given.
19	Sarah Lopas, who I believe you've talked
20	to before, if you would like to give her that
21	information, that would probably be helpful.
22	MS. THOMAS: I couldn't understand you.
23	I'm sorry.
24	MS. JUCKETT: I'm sorry.
25	MS. THOMAS: What contact number should
	NEAL D. CDOSS

I call?

1

3

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

MS. JUCKETT: You can call the 1-800 number that Andy has given before that has the extension. You've spoken before with Sarah Lopas.

MS. THOMAS: That 368-5642?

MS. JUCKETT: Yes, that's correct.

MS. THOMAS: Yes. Okay. Thank you.

MS. JUCKETT: Thank you.

Again, for those on the line, if you would like to make a comment, press \*1 to be added to the queue. And our operator will add you to the meeting.

And for those who would like to submit comments in writing, you can submit them through Regulations.gov by searching the Federal Waste Confidence docket.

And we do have another 45 minutes or so for comments to be called in to the meeting.

And just to remind you, the NRC is interested in getting your comments on some of the topics that were discussed during this meeting such as the scope of the EIS.

Paul mentioned in his presentation about three different scenarios that were included. And we'd be interested in hearing about whether or not

those are the appropriate scenarios for this consideration or whether there should be other scenarios considered.

NRC is also interested in hearing about how to best communicate with the public and stakeholders to find out if there are other means of communication that should be used or other venues.

We've also already heard this evening on several topics such as environmental justice and cumulative impacts. And the NRC is interested in getting views from stakeholders on how those subjects could best be addressed in this type of environmental impact statement.

If you would like to make a comment on those topics or any of the other topics that have been addressed this evening, please feel free to call our 800 number and press \*1 to be added to the queue to make a comment.

And I see that we have Julius on the line again. Julius, feel free to make your comment.

MR. KERR: Yes. In light of Fukushima, there was a ten-mile setback issue. And then there was a issue brought out that they wanted the American people to move back 50 miles away from Fukushima, if I remember correctly. I think maybe in the scoping

process, we ought to look at the fact that we may need a 50-mile radius away from any nuclear power plant.

And another item too that might bear on the fact that we just heard from a friend of mine that doesn't have Internet and doesn't have a telephone. And I know there are 1,000s of people across the United States that fall into this same category. Maybe we ought to think about a bulk mailtype of information process for people that don't have access to the Internet.

And another thing, Ruth really inspires a lot of people. She's a very, very nice lady. And she might have a hard time expressing herself but when she expresses herself, she comes across loud and clear. And if we're really going to be checking these things out, I think it's important that all of this information that's been presented tonight be included in the final report so that everybody knows.

This is a very, very important issue for the people of America. And we need to realize how much nuclear energy is impacting the people of America. And I really think we need to stop. We need to stop nuclear energy. We need to move on to wind power and solar power which has absolutely no

#### **NEAL R. GROSS**

1 waste product. That's the direction we need to go. And I think the NRC knows it. And I'd like to see these guys get jobs in solar power and wind power and 3 keep on going. 5 Thank you for letting me comment. MS. JUCKETT: Julius, thank you very 6 7 much for your comment. 8 And we appreciate all of the commenters 9 that have called in and want to be sure that everyone 10 knows that these comments are on a transcript. 11 each of them will be considered in the writing of the 12 EIS moving forward. So these comments are being recorded and will be considered. 13 And thank you again for your call. 14 15 If you are joining us on the line, you can press \*1 to be added to the queue to make a 16 17 comment. Anna, do we have anyone else on the line 18 19 at this time? OPERATOR: At this time, we do not. But 20 a reminder -- oh, actually, we got another one from 21 Gregg Levine. 22 MS. JUCKETT: Go ahead, Gregg. 23 MR. LEVINE: Thank you for all this 24 I realize I get so many bites at the apple 25 time.

here.

1

3

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

But I was just listening to Julius and thinking about a hearing schedule and sort of combining that with the idea of the evacuation radius which actually pre-dates the State Department advisories on Fukushima. You can see it in Presidential briefings after Chernobyl. I mean, they basically talked about 30- to 50-mile evacuation radius back then.

So perhaps we should look at major population centers within 30 to 50 miles of any site that is expected to have interim or medium- or longterm waste storage and have a hearing there. And I know that means a lot of hearings. But I think the process would benefit from a lot of hearings so that if we're looking at cities within -- I'm in New York City. We deserve a hearing because we are within 25 miles as the crow flies from Indian Point. Folks in Chicago deserve a hearing. Folks in Los Angeles deserve a hearing. And obviously there are cities -major cities all across the country where they would be seriously affected if there was a long-term waste storage issue within 30 to 50 miles from them. So I think that should be the guideline for a sort of hearing plan.

And obviously, I don't think I need to tell you guys, but it seems like you could probably use Facebook and Twitter better to get the word out about stuff like this. I know the communities that I respond to are constantly sharing information via both those mediums. And I know the NRC has a Twitter account. I subscribe to it. But they can probably do a better job of publicizing events such as this.

Because I get the sense that you guys tend to hear from the same 10 or 20 of us a lot. And it would be great if we could expand that.

MS. JUCKETT: Thank you very much,

Gregg. And yes, we are certainly interested in

engaging as many stakeholders as possible in this

process. And we appreciate your comments on how to

better engage the public.

And Julius mentioned about contacting people by bulk mail as a suggestion for those who may not have Internet access. And the NRC staff is interested in what other ways might be useful to get in touch with people either through high-tech or low-tech access. If you have ideas about that, we'd be happy to hear from you.

Again, if you would like to make a comment, press \*1 to be added to the queue.

#### **NEAL R. GROSS**

Julius, welcome back.

MR. KERR: You mentioned contacting other people. Bulk mail is one way, but also an ad in the local newspaper. I know it will be expensive to do it across the United States, but you would reach people, and you would get people to make comments.

And if the NRC really wants to hear from the people, it's going to take sitting down in the pews with them because that's where they're going to be. Most people still read the paper. And that would certainly be one way to connect.

And I'll guarantee you there's 1,000s of people out there around nuclear facilities that would like to say something. I know a man that said he had heard the alarms go off from his youth up until he was an adult. And he never realized what that alarm siren was. He thought it was the lunch call that they were broadcasting. And once he became an adult and moved further out in his education, he begun to realize that he wasn't hearing the lunch bell. He was hearing the alarm for the nuclear power plant.

And I think that kind of situation is hard to believe that that happens in America today.

But there are people still in America that don't have

Internet, that don't have a telephone. And mail is about the only thing that they get and maybe a newspaper. So a newspaper and bulk mail would be a real issue for the NRC to take up. I mean, if you guys are serious about this, it would definitely be a way to progress into the next centuries. And it sounds like this problem is going to continue on because the half life of this thing is 1,000s of years. So we're going to have to keep this program going for 1,000s of years.

And I really hope that you'll hold the people that are making the money off of this nuclear energy accountable to taking care of this nuclear waste for 1,000s of years because it's not fair to give it to the American people and make them responsible for it.

When solar energy is something that will work and it's cheaper than nuclear energy. So why keep doing the nukes, gentlemen? Let's stop the nukes. Let's move to solar energy. Let's move to wind energy. I'd be glad to have wind energy in my backyard or solar panels.

And by the way, I live in the rural area in Graham, North Carolina. I bet you can't even find that on the map.

#### **NEAL R. GROSS**

1 Thank you for allowing me to comment. MS. JUCKETT: Thank you, Julius. 3 think we'll all go look for Graham, North Carolina on a map just to make sure. 5 But thank you very much for your calls and your comments. 6 Anna, do we have anyone else on the line? 8 9 At the moment, we do not. OPERATOR: 10 But as a reminder, you may press \*1 to make a 11 comment. 12 MS. JUCKETT: Thank you. And for those who are still connected to 13 the call, just a reminder that the NRC is interested 14 15 in hearing your comments on the scope of the EIS to support waste confidence and items such as what 16 should be included in the scope of the EIS, how those 17 analyses should be done and potentially even what 18 kinds of references should be used. What kind of 19 20 information should the NRC be considering in the development of the EIS? 21 Again, if you'd like to make a comment, 22 please press \*1 to join the conference. 23 The NRC staff will be here for about 24 another 30 minutes to continue hearing your comments. 25

And I see that we have Tom Rielly joining us on the phone again. Tom, feel free to make your comment.

MR. RIELLY: Yes. Thank you.

I was wondering if based on the last comment made that this generic waste confidence environmental impact study is basically looking at a blank page at the moment, but that's kind of contrary to human nature. And I'm wondering if there is a work product out there that the NRC may think is somewhat analogous to how this effort may come out. In other words, except for its substance, is there a template in existence that may in fact mimic right now in the here and present -- because it's completed work product -- somewhat the end state of this current effort.

Thank you.

MS. JUCKETT: Thank you, Tom. And I think Keith will go ahead and respond to your question.

MR. McCONNELL: Yes. I direct you to the 2010 rulemaking on waste confidence as the most recent version of the Commission's waste confidence decision. There were also -- and we can get -- I don't know that we have the specific references to them -- but there was also a 1990 update of the waste

#### **NEAL R. GROSS**

1	confidence decision, and then the original waste
2	confidence decision that was done in 1984. So all
3	three of those would provide some background
4	information on the approach we're going to take in
5	this generic environmental impact statement
6	development effort.
7	MR. RIELLY: Very well. Thank you very
8	much.
9	MS. JUCKETT: Thank you for your
10	question, Tom.
11	Is there anyone else on the line who
12	would like to make a comment at this time?
13	(No audible response.)
14	MS. JUCKETT: Okay. The NRC staff is
15	going to continue to stand by for the next 30 minutes
16	to take any additional comments that you may have.
17	Press *1 to make a comment.
18	We would like to thank those of you who
19	are sticking with us to hear whatever remaining
20	comments may come in. NRC staff will be here for
21	another few minutes to continue to hear your comments
22	as they may come in.
23	And if you'd like to access any of the
24	information that has been presented tonight, you can

find the information on the website on the NRC

1 website. And it will have the transcripts of this evening's webinar within a few weeks of this webinar. 2 3 And there are already transcripts online from the November 14th meetings. 5 And comments can be received up until January 2nd, the end of the scoping period. 6 7 comments can be submitted either by mail, by fax or through Regulations.gov. 8 9 And if you're still on the line with us 10 and you'd like to make a comment about the scope of the EIS, our communications process or any of the 11 12 subjects that are going to be included in the EIS, please feel free to call the 800 number and press \*1 13 to make a comment. 14 And again, the NRC staff is standing by 15 16 for your comments. If you are on the line with us 17 and you would like to make a comment, press \*1. OPERATOR: We do have a comment standing 18 19 by. 20 MS. JUCKETT: Excellent. Thank you. OPERATOR: Yes. Alicia Rivers, you're 21 22 open. MS. JUCKETT: Welcome, Alicia. 23 24 MS. RIVERS: Thank you. 25 I feel that I have so little background,

particularly in previous EIS statements that have been prepared like in 1984 and 1990. And so, I have a general idea of what you're working toward. And it sounds to me as if Mary Olson's earlier urging you to actually provide something focused on environmental impact rather than compliance with regulations is a lot to ask for.

So I guess I'm thinking about in the area of public health in general. We have mechanisms for giving people over the radio, for example, pollen counts that help elderly people and others struggling with respiratory difficulties to know to stay inside. We have urgings very often, particularly over the radio I quess, for people to get vaccinations and flu shots and all of those kinds of things. I can't recall ever hearing anything, particularly in that radio venue, about warnings from nuclear facilities that are close by or 50 miles away. And I certainly have no information whatsoever on what to do if one of those were to be given to me -- if I were to receive a warning or notification that there had been an accident. I certainly don't have an evacuation route in my head or know where to go if I leave my home. And if that's not supposed to be a part of the EIS, I guess I'm thinking that I hope you guys -- I

#### **NEAL R. GROSS**

1

3

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

really appreciate your openness to all of these
things that we are talking about with you. But I
hope that if an EIS is not the appropriate place to
be getting information that we need that the NRC with
its mandate to protect our safety and our health
would begin supplying that information in some other
way, if not through an EIS.
It seems that as someone else said
earlier, it's not if but when we're going to be in
need of that information.
And I appreciate the opportunity to say
those things. Thank you.
MS. JUCKETT: Thank you very much,
Alicia. We appreciate your call and your comments.
And Keith McConnell would like to make a
statement.
MR. McCONNELL: Just two clarifications.
We agree that environmental impact statement is not a
place where you make a compliance demonstration or
termination with the regulation. It is a mechanism
for disclosing impacts, both safety and
environmental. So I think we are in agreement with
that comment.
With respect to evacuation routes and
things like that, there are around each plant, each

1 licensee and each nuclear power plant licensee has an emergency plan. And they have mechanisms and defined 3 measures in those plans for notifying people and evacuation routes and things like that. So that sort 5 of information is outside the scope of what we're doing here, but is within the scope of the licensing 6 7 of individual plants. MS. RIVERS: Okay. Thank you. I guess 8 9 I'm feeling that I'm not the only person out here who doesn't know that those kinds of things exist or most 10 11 of us I think are not even aware that there might be 12 a need for them. I just think we're very, very ignorant of our vulnerability to relation to nuclear 13 energy and the dangers that it presents for us. 14 15 And I'm glad at least someone is giving some thought to it. I just hope it's enough thought 16 17 and that it will carry for as long as the danger will last into those 100s of 1,000s of years. 18 19 Thanks. MS. JUCKETT: Thank you, Alicia. We 20 appreciate your comment and your questions. 21 22 MS. RIVERS: Thank you. MS. JUCKETT: And additionally, you can 23 find supplemental information on the NRC website. 24

## **NEAL R. GROSS**

And if you get in touch with the NRC contacts,

1 they'll be happy to try to get you in touch with the right people to answer your questions as possible. MS. RIVERS: Thank you. 3 MS. JUCKETT: Thank you for your call. 5 And for those of you are on the line, if you would like to make a comment, press \*1 to be 6 7 added to the queue to make a comment. We still have about 22 minutes left in 8 9 this evening's webinar. And the NRC staff is 10 standing by to take your comments. Again, the NRC staff is taking comments 11 12 this evening on the scope of the environmental impact statement for waste confidence. If you would like to 13 make a comment on the scope of the EIS, please call 14 15 the 800 number and press \*1 to make a comment. Again, if you're with us on the line and 16 17 you would like to make a comment, press \*1. So we have about 15 minutes left in the 18 19 webinar. For those of you who may be calling in from the public who would like to make comments on the 20 waste confidence EIS being developed by the NRC 21 staff, the staff has provided information this 22 evening on how to present comments written through 23

#### **NEAL R. GROSS**

send in comments electronically. And we also welcome

the mail or through Regulations.gov if you prefer to

24

1 your comments again this evening through this webinar by calling our 800 number and press \*1 to make a 3 comment. And again, all of the comments that are 5 received, either through mail, online or in this meeting, will be considered equally and will be noted 6 7 in the scoping summary report and addressed in the 8 waste confidence EIS. 9 Anna, just to be sure, we're not seeing 10 anyone on our queue to make a comment right now. 11 you see anyone on the queue who would like to make a 12 comment? Currently, I do not. 13 OPERATOR: reminder, all you have to is press \*1 to make a 14 15 comment. MS. JUCKETT: Thank you. 16 We have about ten minutes left this 17 evening before we wrap up the evening. To continue 18 19 taking comments, the NRC staff is standing by to continue taking comments. 20 If you'd like to make a comment about 21 the waste confidence EIS being developed by the team, 22 the scope of the EIS, the methods for communication 23 being used, where we could hold scoping meetings, or 24

subjects such as environmental justice, cumulative

impacts and other topics that should be included within the scope of the EIS, please feel free to dial our 1-800 number and make a comment by pressing \*1.

For those of you who are still remaining on the line, we have about ten minutes left before the NRC will be wrapping up this evening's meeting. So you have about ten more minutes to make your comments by dialing the 1-800 number and pressing \*1.

Again, for those who are on the line, if you'd like to make a comment, press \*1 to be connected.

We have just a few minutes remaining.

If you'd like to make any final comments, please dial our 1-800 number, press \*1. We'll be glad to take your comments on the scope of the EIS, the methods of communication being used by the NRC team, additional ways that the NRC could communicate with the public such as those that we have heard from earlier commenters or other comments that have to do with the scope of the EIS, the resource areas being included, the scenarios and other related topics.

We have just a few minutes remaining, so please feel free to dial our 800 number and press \*1 to be connected.

And again, we have five minutes

## **NEAL R. GROSS**

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

remaining before we wrap up this evening's webinar.

If you have additional comments that you would like to make, we understand that several of you have called multiple times, and if you do have additional comments, we have another few minutes to take them.

Or if you're a new caller and haven't made a comment yet but would like to, we are taking comments this evening on the scope of the EIS, and we'd be happy to hear from you. Dial the 800 number and press \*1 to make your comment.

With just a couple of minutes remaining in this evening's webinar for the NRC staff to take comments, we'd like to remind you that all the comments received tonight will be transcribed and will be added to the record.

If you did not get a chance to make comments tonight or if you have additional comments that you would like to make before the end of the scoping period on January 2nd, you can submit them online or through the mail or by fax.

Again, we have just a couple of minutes left for those of you who are still on the line to make your final comments in this evening's webinar.

Thank you for joining us, and we'll continue to stand by for another couple of minutes.

#### **NEAL R. GROSS**

1 Anna, I'd like to check with you one 2 more time just to make sure that we don't have anyone in the queue to make a final comment. 3 OPERATOR: That is correct. No one else 5 is in the queue. But a reminder, all you have to do is press \*1 to make a comment. 6 7 MS. JUCKETT: Well, at this time since we have no final comments, we'd like to conclude this 8 9 evening's webinar with some comments from Keith McConnell. 10 We'd like to thank Anna, our Operator, 11 12 for working with us and staying with us all evening. You've been very helpful. Thank you. 13 And also to our transcriber. Eric, 14 15 thank you for your help, and to all the NRC staff and presenters who are present for this evening's 16 17 meeting. Keith? 18 19 MR. McCONNELL: Thank you, Miriam. Again, we appreciate people taking the 20 time to participate in these webinars and other 21 meetings that we've had. We know that it takes an 22 effort, and we appreciate you taking that effort. 23 And again, like the other meetings we've 24 had on the scoping, we've found the comments that 25

we've gotten tonight very thoughtful and heartfelt, 1 2 so we appreciate that also. We will attempt, as the commenters have 3 suggested, to expand our outreach efforts to the 5 extent that we can. But we would in the interim encourage people to -- those that can -- to check our 6 website frequently for future opportunities for 7 participation in our development of this generic 8 environmental impact statement. 9

So with that, I adjourn the meeting. Thank you very much.

(Whereupon, at 11:56 p.m., the webinar was concluded.)

14

10

11

12

13

15