Note: During the January 31, 2012 webinar on the draft report entitled “Background and Preliminary Assumptions for an Environmental Impact Statement—Long-Term Waste Confidence Update,” time did not allow the NRC staff to respond to all of the written questions that were submitted. NRC staff responses to the unanswered questions are appended to the webinar transcript that follows.

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NUCLEAR REGULATORY COMMISSION

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OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS

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WASTE CONFIDENCE WEBINAR

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TUESDAY,

JANUARY 31, 2012

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The webinar was convened at 2:00 p.m., Lisa Janairo, The Council of State Governments, Midwestern Office, presiding.

PRESENT:

LISA JANAIRO, The Council of State Governments, Midwestern Office

CHRISTINE PINEDA, NRC, Office of Nuclear Material Safety and Safeguards

JAMES RUBENSTONE, NRC, Office of Nuclear Material Safety and Safeguards

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

(2:00 p.m.)

MS. JANAIRO: Welcome to this public webinar on waste confidence, co-hosted by the U.S. Nuclear Regulatory Commission and the Council of State Governments, Midwestern Office. I'm Lisa Janairo, with the Council of State Governments, and I'm managing the logistics for this webinar.

Here's the agenda for our session today. We'll start with a few ground rules and housekeeping items before we turn to the presentation. Following the presentation, we will have time for stakeholder questions and feedback, and we'll be wrapping up by 3:30 p.m. Eastern Time.

Turning now to housekeeping, this webinar is being recorded. The slides from the presentation, the recording, and a transcript will be available on the NRC's public meetings page next month. Goto webinar will also have a recording archived on its Web site, and you'll all receive the link to that recording in a follow-up message that'll go out later this week.

To reduce the possibility of feedback or other external noise, all the lines are in listen-only mode right now and they'll stay that way while we're

hearing from our speakers. After Christine Pineda's presentation is complete, we'll take questions in the order received.

Right now we have over 100 people on the line, so please to try to limit questions to those of a clarifying nature so that we can get to as many participants as possible. You have two options for asking questions, you can type them using the Goto webinar questions pane, or you can raise your hand and I'll unmute your line.

Note that clicking on the hand button toggles it on and off, and if you click the button, you should see an indicator that your hand is raised. If you click on the button again, your hand will no longer be raised.

Using your microphone and speakers is one of the two options for the audio component. If you're using this option, please make sure to test your audio settings before raising your hand to ask a question. If you look at the audio pane in Goto webinar, there's a link for testing your microphone and speakers.

If your microphone doesn't work, you'll need to type your question or choose the option to dial-in using your telephone. To help ensure high audio quality on the line today, and on the recording,

if you do ask a question, please refrain from using a speakerphone.

And finally, after the webinar, a brief survey will pop up. Please take the time to fill out the survey so that we can get feedback to help improve these webinars.

I'm going to turn the floor over now to James Rubenstone with the NRC to explain the purpose of today's webinar and to introduce our speaker, Jim?

MR. RUBENSTONE: Thank you, Lisa, can everyone hear me?

MS. JANAIRO: You might want to speak up just a little bit, Jim.

MR. RUBENSTONE: Okay. Thank you, Lisa, and welcome to everyone who is in attendance on this webinar. If you have participated in some of our previous meetings and webinars on this topic, you know that this is the beginning of a multi-year project that NRC staff is doing to examine updates to the waste confidence decision, and as part of that, to produce an environmental impact statement examining the impacts of possible long-term dry storage of spent nuclear fuel and high-level waste.

The main purpose of today's webinar is to walk through a report that was issued by NRC at the

very end of December of last year that gives some background and preliminary assumptions for the EIS, and our speaker today will be Christine Pineda, who will go through the report, discuss some of the assumptions and background that's involved there, and then we'll open it up for questions when we're done.

And I certainly appreciate all the people on the line, but keep in mind, given the number of attendees, that if you would like to ask a clarifying question, there may be a large number of people with questions and we want to try to get through as many as we can during this period.

And Christine will fill you in on some other ways in which we can take questions and comments on the report and other activities. So I'll turn it now to Christine.

MS. PINEDA: Thanks, Jim. Can you tell me if you can hear me okay?

MR. RUBENSTONE: Just fine.

MS. PINEDA: Okay. Thanks very much to Jim and Lisa. Again, my name is Christine Pineda and I'll be walking through the report that we published in December and that report, as Jim described, is providing our preliminary information, including preliminary scenarios and assumptions, that we are

developing to ultimately develop an EIS for the long-term waste confidence update.

And this long-term update, the Commission direct the staff to do this update a couple of years ago now, and the staff, in February of 2011, developed a paper for the Commission providing its plan for developing the EIS, and the report expands on that, and updates some of the assumptions that were provided in that plan.

And I know some of you probably attended our public meetings and our webinar that we had in December, but for those who haven't, we have had some previous public meetings in the fall of last year, and we had a webinar in December, talking about our preliminary plans and answering questions.

And so if you're interested in learning more about those meetings, our Web page that is on this slide here, this public involvement Web page, contains, sort of, a history of our various meetings, and the meeting summaries, and the slides, for those meetings and the webinar. And the report is also available at that Web site.

So the primary purpose of this webinar is to actually answer any clarifying questions that you have about the draft report and the scope of the EIS,

but before that, I'll provide a little bit of background on waste confidence. It won't be as much as we provided in December, and in the meetings, so I can answer questions if needed, and then also to walk through the sections of the report. And the report does contain a more expanded background on waste confidence.

And again, the report's available at this Web site that you see on this slide and you can submit comments on the report, and on the project in general, to this address that you see here; it's WCOutreach@nrc.gov.

The report is the very first step in the process of doing a long-term update, which will, of course, consist of the draft EIS, and an update to the Waste Confidence Decision, and a possible update to the rule.

This report is being done prior to initiating the NEPA process, and I'll talk more about the schedule later, but this is something that we're putting out to make sure that we're covering the significant factors that we would need to consider in an EIS, and to get public feedback on that information.

So the report, which I believe you have,

that Lisa sent to you today, the bullets here provide the main sections in the report. It's not every single section listed in the report, but these are the main topics that are covered in the report, and I will generally be talking about all these topics here.

So if there's aspects of the report, specific sections that I don't explicitly cover in my talk, of course, you can ask questions about those aspects. But the report provides some background on waste confidence, as I mentioned, and it also discusses the NRC's regulatory role in trying to clarify the NRC's regulatory purpose and the NRC's role with regard to waste confidence.

And then it gets into a discussion about what the EIS itself would contain, and discussing the methodology that we propose to use, and the scope of the impacts, and where we would get our information, how we would use quantitative, or qualitative, information, and other sources of information.

And it lists our general assumptions that we have made thus far and it describes our general scenarios for comparing the impacts. And then it describes the process, the general schedule out, starting from now until 2019, and the major milestones between now and then, and also briefly discusses some

of the NRC activities that we've had in the past couple of years; early in the past year.

The origin of waste confidence, in 1979, the U.S. Court of Appeals for the District of Columbia Circuit required the NRC to make findings, and there were two findings that the NRC had to make. And that was, whether the NRC had reasonable assurance that an offsite disposal solution would be available by the expiration of plants' operating licenses, and if not, another finding about its level of assurance, that spent fuel could be stored safely at the sites beyond the expiration of the operating licenses.

In response to the Court's ruling, and also in response to another ongoing proceeding at the NRC, the NRC developed the waste confidence decision, and the rule, first, in 1984. And the decision is composed of five findings and their bases. And the five findings pertain to the feasibility and the safety of spent nuclear fuel and high-level waste storage and disposal.

The rule was established to fulfill part of NRC's NEPA obligations when licensing nuclear power plants. And the rule is in NRC's Regulations in 10 CFR Part 51, and that applies to what the NEPA analyses for new dry storage facilities would need to cover

regarding extended storage and states that, because the conclusion is that, for the existing rule that, impacts would not be significant, that those environmental documents do not need to contain site-specific analyses of extended storage beyond licensed life.

And the decision those five findings and their bases provide the basis for the rule and, of course, the rule is generic and it applies to all the sites.

And just as some background, the state of New York, and other states, filed a lawsuit against NRC concerning the 2010 Waste Confidence Rule and its consideration of environmental impacts.

And I should note, I didn't mention earlier, that the decision and Rule were first established in 1984, and they were updated in 1990, and then they were reviewed in 1999, but not updated, and then they were updated again in 2010, and it's this 2010 decision and Rule that are currently being challenged by several states. And so those aspects of the 2010 Rule are not part of today's discussion.

Just to give some background and clarification, the NRC is a regulatory agency. We're not a programmatic-type agency, such as EPA or DOE.

Our main purpose is to ensure the safe management of nuclear materials and we do this through our licensing and enforcement processes. We do not manage and propose programs.

We regulate storage through a comprehensive program and this is one of our key assumptions in the EIS, that there would be a continued comprehensive program managing the storage of spent nuclear fuel. We're not assuming that storage sites would become de facto disposal sites or would be left in place without continued management.

Waste confidence, as I believe I described on the previous slides, conveys the Commission's conclusions that safe storage and disposal are feasible and will be available, and those are expressed in those five findings.

Waste confidence is not a regulatory program. It's not meant to make requirements on storage, or storage and disposal, and it does not establish any requirements, and it's not a specific licensing action. It does not apply to any specific plants, but the findings apply generally to all plants. And it's simply the statement of the Commission's assurance about safe storage and disposal.

Concerning the EIS, the proposed scope and methodology, our preliminary assumed storage period would be on the order of 200 years, and that's for the impacts analysis. And that would begin starting about the middle of this century out for 200 years.

Our methodology, we are going to, generally, since this is not going to be a site-specific EIS, be making use of developing, what we're calling, composite generic sites. And these will be developed after we review existing current sites, and new proposed sites, and looking at the characteristics of those sites, and the facilities on those sites, identifying patterns and groupings that could then be factored into representative sites.

So say we would have 10 or 20 sites that we choose certain characteristics, and we put those into those sites, and they represent a whole group of actual sites. So in that way, it's not going to be a site-specific analysis. And because of that way of developing these generic sites, the impacts, therefore, will not be site-specific, they will be discussed generically.

There's going to be some impacts that we'll be able to quantify, such as land use and radiation exposures to workers and the public, and

that kind of thing, but there will be some impacts that we won't be able to quantify. For example, impacts to surface water, or ground water, that are not able to be quantified because those are site-specific impacts.

In order to develop our analyses for the impacts, we'll be doing some analyses for those things that we can quantify, but then we will be using, to the extent we can, existing analyses in relevant environmental impact statements developed by the NRC, or other agencies, if they contain information that is current and can be used for these analyses.

So when we get into discussions that impact the specific media, or that kind of thing, we will likely be referencing existing analyses and impacts conclusions.

To the extent we can, also we'll be taking advantage of ongoing technical activities concerning extended storage and transportation that the NRC is involved in, and that's to support its regulatory program.

Currently NRC is identifying what technical information it needs to ensure the safe regulation of spent fuel storage and when that technical information becomes available, it may be

that it can be used in the EIS to help inform the EIS analyses, and that will be several years from now.

The one thing I want to note is that the Commission has not determined whether this is a major federal action that would have significant impacts. The 2010 update concluded that there would be no significant impacts from 60 years beyond licensed life storage, but by doing this EIS, we're not necessarily stating that there would be significant impacts. We're doing this EIS at Commission direction because of the public interest in this topic.

The report discusses, I believe, it's about nine assumptions, but of course, all throughout the discussion there are assumptions, sort of, embedded in the discussion of the methodology, but I've listed just a few of the major assumptions that are discussed in the report.

Nuclear power would continue in the same proportion that it exists in the supply on the electrical grid, like, the supply of electricity today, that is, the proportion of nuclear power would not increase.

As I mentioned earlier, storage continues to be a fully regulated activity. There would not be a situation where spent fuel would be stored on a pad

and then, at some point, the Federal Government walks away from it. It will be fully regulated throughout the storage period.

All the scenarios include transportation between the sites. So as I'll describe when I discuss the scenarios below, between storage sites and also from the storage sites to a disposal site. So we'll look at the impacts of transportation, but we're not going to be looking at the impacts of disposal itself.

We're also assuming that conditions 200 years from now for things such as transportation infrastructure, and other things like that, will be the same as it exists currently, because we just can't speculate, when we go that far out, on what kinds of conditions would be there, so we're going to be using current conditions.

The preliminary scenarios discussed in the report that we'll be using to develop our impacts analyses, and then compare the impacts, will include continued onsite storage; so 200 years of storage onsite. Storage at a regional facility, so that would include transportation from the plants to two or more regional facilities.

Storage at one central location and possibly a combination of one or more of the other

scenarios plus some amount of reprocessing. So spent fuel would be transported to a reprocessing facility, reprocessed, and then the resulting high-level waste would be stored at a co-located storage facility. And the purpose of this scenario is to include high-level waste storage in our impacts analyses.

So a general timeline is, in April of this year, we'll finalize this report providing, probably, an appendix that will discuss the types of public comments we receive and how we address them in the report.

And then over the next year, we'll continue developing preliminary information for the EIS scope and preparing, also, to do our public scoping under NEPA, under the National Environmental Policy Act, and the public scoping would probably start in the summer or fall of 2013.

Between 2013 and 2016, we will develop the draft EIS, and as I mentioned, a possible draft decision, and a possible proposed rule. I should mention also that, after we have our scoping process in 2013, we'll develop, what's called, a Scoping Summary Report where we'll, again, describe the kinds of input we receive concerning the EIS scope, and then what we determined should be the disposition of that

input regarding the EIS scope.

And I also should mention that, at the time we start the scoping process, we plan to have more documents for the public to review concerning the EIS scope. So maybe some more detailed descriptions of methodology or sites; that kind of thing.

So there will be more information available for review at the time that we do start scoping. So there will be more information to provide comment on regarding the scope of the EIS.

Okay, skipping ahead now to 2017 and 2019, we will, at that point, if necessary, develop and publish the final EIS decision and rule.

So that's my short overview and, of course, the rest of the time is to respond to your questions. And if you could please limit them to clarifying-type questions, that way we can allow for maximum participation amongst the people that are on the line here.

And remember that you can provide your comments on the report. They're due by February 17th, and you can provide them to this address; WCOutreach@nrc.gov.

MS. JANAIRO: Okay. Thank you, Christine. I think we'll leave your slides up in case anybody

has a question specifically about one of them. We have a number of written questions, but first we have a hand that's been raised for a while. We'll go to Ken Niles. Ken, your line is open.

MR. NILES: Thank you, Lisa. Good afternoon. It seems that adding reprocessing as part of one of the options unnecessarily complicates this. And you did mention that the reason for doing this was to include high-level waste storage in the analysis, but at the same time, to anticipate what that high-level waste form might be, seems to be pretty speculative as well.

And so I'm curious as to why it's felt important that this would be useful to able to determine, you know, what the impacts would be of long-term storage and then transportation.

MS. PINEDA: I agree that it will be somewhat speculative, although there is information available about other countries do reprocessing and we do have some information about reprocessing. So what we would have to provide is a, sort of, bounding characteristics of what we think the high-level waste would look like coming out of that reprocessing.

For example, would it be in a glass form and it's just so that we can come to a conclusion

about the safety of high-level waste storage as well. But of course, it will be limited because we'll have to make some very general assumptions about the nature of that high-level waste, and it will certainly not be a replacement for any EIS that would be done as part of, either any reprocessing rule making, or licensing a reprocessing facility.

MR. NILES: Okay. Thank you. It does seem to unnecessarily complicate it when you could just go to DOE for information on their vitrified waste that they've been storing now for decades. So thank you.

MS. PINEDA: Okay. Thank you. I've taken note of that.

MS. JANAIRO: Thank you, Ken. Okay next we'll go to a written question. This comes from Rick McLeod, since NRC will license any and all interim storage facilities, will NRC not be ready to license an offsite interim storage facility until after this EIS and then the site-specific EIS are complete? Does NRC plan on doing this in parallel?

MS. PINEDA: This EIS is being done to understand what we think the impacts would be of long-term storage. In the meantime, if any site-specific storage facility is proposed, or any regional storage

facility, or central storage facility, that would certainly continue.

If NRC is presented with an application for a facility, because the waste confidence isn't part of the regulatory program, so on the regulatory side, there would be a licensing review of any proposed regional facility, or central facility, or, you know, additional site-specific facilities, and that would continue.

It's just that, for this EIS, we're trying to understand, get a sense of what would the impacts be if storage were to continue for the long term? And this EIS does assume that the regulatory, as I mentioned, program continues. So it could be done, you know, in parallel with this EIS.

And then, of course, there would be information sharing because we would have an actual application that we would be reviewing.

MR. RUBENSTONE: If I could jump in, this is Jim Rubenstone, the thing to remember is that this EIS is for the generic question of extended storage, and if an application comes in for some offsite, centralized, or any other sort of dry storage facility, the current licensing framework of that is to grant, if it's approved, a license for a 40-year

period.

So any analysis done in that regulatory action would be under the context of a license for the initial 40-year period. So there are differences in what you would do for an individual site license, either offsite or at the site, compared to this generic question of extended storage.

MS. JANAIRO: Okay. Next we'll go to a written question from Linda Seeley, will all spent fuel pools have the number of rods reduced to design standards?

MS. PINEDA: The assumptions for the EIS is that the pools will, at least what I think will be the assumption, reflect in the analysis what they contain now. So I know that there are some pools that are, the original capacity was a certain amount, and the capacity now is greater than that, so the EIS would reflect what the capacity is now, but wouldn't reflect the original capacity.

So I'm not sure if the caller was asking about the EIS scope or a separate thing, which would be the regulation of the spent fuel pools. I can't say what the NRC would be doing concerning regulation at the pools in their capacity.

MR. RUBENSTONE: Again, this is Jim

Rubenstone, the current state of the pools has been evaluated as part of the reactor licensing and any amendments for the present capacities have been looked at. So this EIS is to analyze impacts of some future scenarios. It isn't directed towards, you know, any present regulatory action.

MS. JANAIRO: Okay. And, Linda, and others, if you have a follow-up question after you get your answer to a written question, please feel free to either type it in or raise your hand.

Next we'll go to another written question, for the people raising your hands, please be patient, we have quite a few written questions first, question from Rick McLeod, does the 200-year time period, by default, define the definition of the interim storage period?

MS. PINEDA: I'm not sure what he means by that. For the EIS, we chose a period for the analysis to analyze the impacts, and the 200-year period would be 200 years for analyzing the impacts. That 200-year period starts at the middle of this century, and extends out, and what it does is it picks up where the present Waste Confidence Rule, the 2010 Waste Confidence Rule, leaves off, and that is at about 120 years of storage.

So the total storage time is 300 years and that's what's being analyzed in the technical activities, but the EIS will look at the 200-year period for impacts. This EIS is not making any statements about whether fuel would be stored for that long or not, because that is being done strictly under the regulatory program for license and storage.

So as Jim mentioned, it's a 40-year period and I think the renewal is 40 years.

MR. RUBENSTONE: Yes, that's right, Christine. And we're not making any statement about defining what interim storage is. That's policy questions and the NRC's role is to assure that whatever storage takes place is done safely and securely.

The 200-year period was picked as what staff currently thinks we can do an analysis for that has some reasonable results that we could get out of it. It, to some extent, is an arbitrary choice just to give us something to work on for the analysis and it shouldn't be taken as defining anything about policy.

MS. JANAIRO: Okay. And then here's a question about the time frame, given the 2019 final EIS anticipated date, does this mean we will not have

an answer relative to interim storage until 2019 or however long it takes to do the site-specific EIS presumably for consolidated storage?

MS. PINEDA: Well, what would come out of this EIS is an assessment of what we think the impacts would be of storage. Any decision on what road to go down concerning storage would be made by the Congress, and then, of course, NRC, if presented with an application, would license that. So how it actually plays out is separate from this EIS.

It could happen, you know, if something is proposed in the next couple of years, that becomes policy, and there's an entity that is, you know, put in charge of developing a storage, and presents NRC with an application, and we review it, and so that could very well be something that's going in parallel with this EIS, but nothing on that side is waiting for the outcome of this EIS.

MR. RUBENSTONE: And again, any decisions on safety of a given site are made for that individual site and the licensing period is 40 years as the initial, and then 40-year period of renewals. Any site coming in for a renewal, an existing site, after the initial license, has to present an aging management plan, which is evaluated by NRC staff as to

its adequacy to ensure safety for that next renewal period.

So even though we talk about analysis periods of 200 years, the regulatory period continues to be these 40-year increments. So an analysis for 200 years doesn't make any statement about the particular safety of a particular site over a long period. It only talks about the feasibility of what the impacts would be over that period.

The evaluation for the safety is done for each successive renewal period.

MS. JANAIRO: Okay. We'll go to two written questions from Patrick Dostie and then we'll go to Robert Rader, who has his hand raised. First one from Pat Dostie, is the NRC limiting design basis threats to ISFSIs based on acceptable dose at the boundary of the owner-controlled area? If so, what is that dose?

MS. PINEDA: That's something that I can't answer. That's a regulatory question about licensing the ISFSI. I'm not sure if Jim has an answer or not.

MR. RUBENSTONE: I don't have that answer with me and I think if he could submit that to the Web site, we'll try to get a response. That falls directly into the current dry storage licensing

framework and we can get a staff member from that to respond. I'm sorry, we don't have that answer right now.

MS. PINEDA: Yes. As Jim mentioned, you can send that question to that WCOutreach address.

MS. JANAIRO: Next question, also from Patrick Dostie, since the waste confidence EIS assumes 200 years, is the NRC contemplating extended storage beyond the current 300 years, such as 400, 500, or more years?

MS. PINEDA: Again, the 200-year period for the EIS is an analytical period only. It's not that we are assuming that spent fuel is going to be stored for 200 years. In the technical activities that are ongoing by NRC, and a number of other entities, these organizations are looking at technical issues that might be associated with storing waste for 300 years, and that 300-year period is just basically, I think, it shows a number that would give them a good range for doing an analysis to get a range of what the behavior of the spent fuel would be over a long period of time.

And so this EIS, in assessing the impacts for 200 years, but accounting for 300 years of aging, is being consistent with those other activities. But

the NRC is not, as Jim mentioned, making any statements about how long spent fuel should be stored, or proposing anything about the length of storage.

MS. JANAIRO: Okay. All right. Well, next up is Robert Rader; Robert? Well, maybe Robert's microphone is not working. He does have a question that he posed, a written question, if I can find it in the queue, well, while I'm looking for that, oh no, here it is. So does the 200-year period start at the issuance of the final EIS or after the 60 years has run under 51.23?

MS. PINEDA: The 200-year period for impacts starts after the 60-year period that's contemplated in the current Waste Confidence Decision. So it starts, basically, at the middle of this century.

MR. RUBENSTONE: And again, this is just an analytical convenience. It's not saying that, at some given time we are making a regulatory call for the next 200 years. So I can understand the confusion. It's a little complicated how waste confidence fits together, but they shouldn't expect that this 200-year period is tied to any given licensing action because this EIS is not designed for a specific licensing action.

MS. JANAIRO: Okay. All right. Next, we'll go to Joseph L., and after that it'll be Timothy Runyon. So, Joseph, your line is open. Joseph, are you there? Okay. We'll go to Tim Runyon. For anyone who has a hand raised and if you're not sure that you have a functioning microphone on your computer, please go ahead and click, under the audio pane, the test link and it will test your system for you. Tim, lines open.

MR. RUNYON: Okay. This might be a little confusing question for you folks because it's a confusing question for me, but it seems to me that we're now doing a generic EIS on waste confidence and waste storage after a specific licensee has already done an EIS for private fuel storage. Can you shed some light on the relationship there between the two? I mean, we've already been through a specific process.

MS. PINEDA: Yes. That's correct. We have and we have that information. This EIS is being done for waste confidence specifically, whereas, PFS was done for licensing a specific facility, but the information in PFS, I think, will be very useful for us in developing this EIS, because PFS was, what you might call, a regional facility.

And so it will have a lot of information in it that we can use for this EIS. So there will probably be a lot of references to that EIS, but they have different purposes and they don't overlap each other, except for where the impacts analysis might be used in both EISs.

MR. RUNYON: But --

MR. RUBENSTONE: Yes --

MR. RUNYON: Pardon me.

MR. RUBENSTONE: I'm sorry. Go ahead.

MR. RUNYON: But wouldn't a lot of the questions that you're posing as part of this EIS, as they relate to waste confidence, wouldn't they have been necessary to be answered as part of the EIS done for private fuel storage?

MS. PINEDA: Well, the EIS for private fuel storage was for the licensing period, and I'm not sure if it looked into the license renewal period, but is for a limited period of time. And so the main difference would be, or a main difference would be, that this one is looking out for extended periods and we're going to have to make assumptions and some projections about what the impacts of, you know, storing very aged fuel would be.

Whereas, for PFS, that was for a specific

licensing scope and had it operated for 40 years, or whatever, and then had they issued a license renewal, they would have had to do an update to that EIS for the license renewal, so it doesn't have the same time, temporal, scope.

MS. JANAIRO: Tim, did you have it --

MR. RUNYON: Yes. I mean, that's fine. I mean, I got my follow-up questions answered.

MS. JANAIRO: Okay.

MR. RUNYON: I guess, you know, I'm looking for the relationship, but I guess I understand it a little better, but, you know, I guess still, from a simple perspective, it's -- you know, I assume where, you know, like she said, we're not recreating the wheel here, but maybe the application is slightly different because they're looking at longer time frames.

MR. RUBENSTONE: I think one way to think of it is the question that the EIS for PFS was designed to answer was, what are the environmental impacts of the NRC licensing this PFS facility? Whereas, this waste confidence EIS the question is, what would be the environmental impacts if fuel were allowed to be stored for extended periods at a variety of sites?

So there's a lot of overlap, and I agree, and we're certainly going to draw on the analyses that were done for PFS and not duplicate it.

MR. RUNYON: Right.

MR. RUBENSTONE: But they're designed to answer slightly different questions. It's a nuance.

MR. RUNYON: Okay. You know, I recognize that they're different, but they don't appear to be mutually exclusive.

MR. RUBENSTONE: No, no. Like I said, there's a lot of overlap and certainly the analyses that were done for PFS are going to be one of our main sources right out of the gate.

MS. JANAIRO: Okay. Thanks, Tim, for your question and thanks, Jim, for that clarification. Written question from Patrick Dostie, will the NRC consider design basis threats beyond vehicular threats going forward, such as certain terrorist activities with special weaponry?

MS. PINEDA: In the EIS, we will be -- so was that a question about transportation? We are going to be looking at, when we look at our analyses of impacts of what you might call non-normal operating conditions, accidents and the impacts that could result from a terrorist attack. So that would be

impacts on storage facilities, wet and dry storage facilities, and also transportation.

So I couldn't tell you what our specific scenarios would be at this point, but looking at the impacts of a terrorist attack is within the scope of the EIS.

MS. JANAIRO: Okay. And then a written question from Dianne D'Arrigo, to what extent will NRC include Homeland Security as a cooperating agency on plutonium separation? What about IAEA?

MS. PINEDA: Our intent right now is that we will not have formal cooperating agencies for this EIS, but we will certainly reach out to other Federal Government as well as the state and local governments for input concerning the EIS.

MR. RUBENSTONE: I think this question was specifically about an aspect of a reprocessing analysis.

MS. PINEDA: Right.

MS. JANAIRO: Right.

MR. RUBENSTONE: So, you know, that's a consideration within there.

MS. JANAIRO: Okay. Next, we'll go to Ken Niles who has his hand raised. Ken, your line is open.

MR. NILES: Thank you, Lisa. I wanted to follow up on a question just a moment ago about the terrorism part, and I guess I wanted some explanation on the level of effort and rigor that would go into considering the impacts of terrorism. The language in the draft report on Page 13 is kind of weak at best, where it talks about the EIS will include a discussion of terrorism and the NRC will consider this.

Is this going to be a rigorous evaluation and get the same level of rigor as the other parts of the EIS or is something less planned for the terrorism aspect?

MS. PINEDA: As I mentioned earlier, we are going to be using, to the extent we can, existing analyses in relevant NEPA documents. So the terrorism analysis, there could be some newly developed analyses for this EIS, but we would also reference existing analyses that we have done for other EISs if they're applicable for the specific scenario that we would be wanting to analyze the impacts for.

You know, if there's a certain scenario of a terrorist attack, you know, related to an ISFSI, if the NRC has analyses that were already done, we would make use of those analyses, but that's not to say that we wouldn't do, you know if we consider that there's a

certain scenario that we need to think about, that has not previously been analyzed, that we wouldn't analyze that.

MR. NILES: Okay. So it sounds like more than just a discussion is planned.

MS. PINEDA: Yes. It would be treated the same way as the realm of the other impacts.

MR. NILES: Great. Thanks. Okay. Thank you for that clarification.

MS. JANAIRO: Okay. Next, we'll go to a written question from Linda Seeley, and, Linda, because we have so many people wanting to ask questions, I'm going to try to pull out, from your comment and question, a few questions that haven't been addressed yet, such as, how can you make a generic analysis for sites that are very different geologically? Like, that's getting at the issue of the composite sites, instead of doing a site-specific analysis.

MS. PINEDA: And that's what we will have to look at when we're developing our composite sites is, the range of settings that actual sites are located in, and to make sure that our composite sites capture that range, so that when we develop the impacts, we have also captured the range of potential

impacts.

So while we're not going to be evaluating each difference among all of the sites, we will need to do it in a bounding way so that we've captured the range of characteristics.

MR. RUBENSTONE: And just to add, we talked about this a little bit more in the earlier webinars, we will have multiple composite sites. So there will be sites that share certain geologic characteristics, certain other degree of natural hazard characteristics that will be composited for that purpose.

So we haven't determined exactly how many composite sites will be needed to capture the full range, but it's probably more than one or two. It may be, you know, ten, but again, we haven't made that decision yet. I think with the question about the geological setting, certainly, you know, a composite site that represents some level of earthquake hazards for the Western part of the U.S. would be distinct from a composite site that represents a different earthquake hazard in a different part of the country.

Likewise, for other natural hazards, likewise, for proximity to water bodies, so there's a number of criteria we'll use to try to group sites

together. Right now, there's 60-some ISFSI licenses out there, and the number of sites, some of which have some similarities, but some of which might be the only site, kind of, in a class. So that's still to be done.

We're trying to not have to analyze, you know, 100 different sites if we can come up with enough commonalities.

MS. PINEDA: And we are also remaining open to the idea that we will, I think we said this in our meetings, consider actually analyzing an actual site if we think that that site, you know, will shed some light on when you're comparing impacts. If it looks like it's worth doing a specific actual site, because that site is so different, or whatever, if it just has certain characteristics that make it worth analyzing that site, then we would do that.

But right now, our methodology is to develop the composite sites, but we're remaining open to that possibility.

MS. JANAIRO: Okay. And Linda also has another question, upon what scientific research did you base your assumption that spent fuel can be stored safely for up to 300 years?

MS. PINEDA: Well, this EIS hasn't been

developed yet, and therefore, we haven't made that conclusion yet. The purpose of the EIS is to do the analysis and to identify what the impacts would be for storing waste for that 200-year impact period, which is for the 300-year aging period.

So we have not made that conclusion yet. That conclusion will come out of the analysis of the EIS. So, you know, we'd go through and do the EIS and then come out with a conclusion that the current Waste Confidence Decision, which is 60 years past licensed life, should not be changed, or we could come out saying, we think we can extend it to 100 years past licensed life, but once you get past 100 years, the costs and other impacts to workers are such that it doesn't work to try to store waste beyond those periods.

Even if it's being managed under a regulatory program, there could be certain impacts that might results in a recommendation in the EIS that waste should not be stored beyond a certain period, but again, that does not relate to the licensing of a specific facility. It would just be a conclusion about how long it could be stored; how long spent fuel could be stored.

MS. JANAIRO: Okay.

MR. RUBENSTONE: Just to add to that, even though dry storage systems don't have moving parts, they are still actively managed and people shouldn't jump to some assumption that when we say we will analyze this for 200 years, or a 300-year period, that that means that there's no active participation by the owner of the fuel and the storage site, remediation, repair, all those aspects, inspection monitoring, are part of the regulatory program that is one of our assumption.

MS. JANAIRO: Okay. Next, we'll go to Tom Clements, who has his hand raised. Tom, your line is open.

MR. CLEMENTS: Yes, can you hear me?

MS. JANAIRO: Yes.

MR. CLEMENTS: Yes, my name is Tom Clements and I work for the Alliance for Nuclear Accountability, which is based Washington, but I'm in South Carolina, and my question relates to the Blue Ribbon Commission Report that was issued last week, and I'm curious what you think the impact of that report, and any ensuing action by Congress of the Department of Energy, might have on your process?

And firstly, if there is going to be any congressional or DOE action where they take the

recommendations into account and do something, it could have an impact on your timeline.

And secondly, getting back to the very first question, the Blue Ribbon Commission did not make a recommendation for reprocessing of spent fuel and they did make a recommendation for community involvement in siting storage or disposal facilities, so it seems to me like, whatever happens next is going to impact your process and I'm just wondering how you're going to take this into account.

And people in South Carolina are obviously concerned about what the future may hold for the Savannah River site, whether it be reprocessing or spent fuel storage, and there's concern about that here.

MS. PINEDA: I recognize the Blue Ribbon Commission did not recommend reprocessing and so our inclusion of that is, we just want to make sure that we include high-level waste in our analysis at a general level, but we're not going contrary to what the Blue Ribbon Commission is saying, because we're not recommending any of these scenarios, but we're just trying to include an analysis of the impacts of storing high-level waste.

And regarding their other recommendations,

I think it was published in the draft, it was 2 and 4 that talked about regional storage and a siting of disposal facility, we are, for this EIS, of course, including regional storage scenario as well as central storage. And all of our scenarios assume that this spent fuel and high-level waste would be transported, ultimately, to a disposal facility.

Regarding the community siting a disposal facility, or, I guess, any facility with community involvement, that's something that would be part of the regulatory process, so would not really affect this EIS, although there could be some discussion in the EIS about the process, but I don't think it would affect the analysis of impacts of storing waste for long period. That's the scope of this EIS.

MR. RUBENSTONE: Just to follow up, it's important to keep in mind that we've laid out our process and assumptions based on what our understanding of current policy is, and as policy evolved, it would certainly take that into account in the EIS.

So if there is a more defined path coming forward, that may change --

MS. PINEDA: Right.

MR. RUBENSTONE: -- once it's analyzed.

MS. PINEDA: Maybe we have a draft EIS and then a policy comes out that becomes law and our final EIS looks very different from the draft EIS. That's possible.

MR. CLEMENTS: The Blue Ribbon Commission also said that the first fuel they were looking at was consolidating material from closed reactors. How would you address that?

MS. PINEDA: I think that would be addressed in our regional storage. We haven't discussed whether we would be -- you're talking about consolidating fuel at specific reactor sites from other reactor site or consolidating it at a regional facility?

MR. CLEMENTS: Well, I think it's unclear it they would be consolidated at an existing reactor that already has fuel, but they were looking at the material that, they used the term orphaned, or stranded, I think, which I don't necessarily agree with, but, like, Rancho Seco, for example.

MS. PINEDA: I think that will be addressed in our regional storage facility scenario. We do still have yet to work out more of the details of each of the scenarios, so that's something, of course, that we're aware of, the fact that there are

decommissioned sites with spent fuel, and what will we do within the at-reactor storage scenario, and within the regional storage scenarios, what will we do with those? That's something we haven't worked yet.

MR. CLEMENTS: Thank you.

MS. JANAIRO: Okay. Thank you, Tom. Okay. We have a half an hour and a lot of questions, so we'll try to get through some of the written ones and then go back to the hands raised, and just for the people who have their hands raised, Richard Moore and Moreen Conley, you'll be the next two up, so be prepared please.

We have a comment from Charisse Roller, storage and disposals should be included in the preliminary scenarios list on Slide 8.

MS. PINEDA: Storage --

MS. JANAIRO: And disposal.

MS. PINEDA: Storage and disposal, oh, okay. Okay.

MS. JANAIRO: And then we have a question --

MS. PINEDA: Except that --

MS. JANAIRO: Go ahead.

MS. PINEDA: Just for clarification, we aren't going to be looking at the impacts of disposal,

but I understand that, right, the endpoint for each scenario is disposal, so we can clarify that.

MS. JANAIRO: Okay. And then we have a written question from Melanie Rasmusson, why assume that nuclear power will remain in the same proportion given the number of applications? And is that assumption also for 200 years?

MS. PINEDA: That's the assumption we have made to date. It's possible that we could change that assumption down the road if we see that it looks like it's inevitable that the proportion will increase, that we could change the assumption, but I think based on the level of uncertainty right now, the assumption that we wanted to make would be that it would remain the same.

MR. RUBENSTONE: And then one of the things we're looking at as we do these analyses is to see what actually drives some of the impacts. So if nuclear power was to grow as a proportion and grow in the total amount of power being produced by nuclear power plants, that would affect the amount of spent fuel being produced.

So if there's a way to scale it in the analysis, we'll be looking at that, but we needed to, sort of, frame the problem as a starting point. And

if it looks like it's something that we can, in fact, analyze, we could work from that. You do have to some limiting assumptions, otherwise you've got a very open-ended problem.

But right now, nuclear power is about 20 percent of electricity generation. We will be assuming there is some growth in electricity generation going forward, but it will continue to be about 20 percent from nuclear power; at least that's the current status we're working with. And we're open to suggestions, as Christine noted, public comment is a big part of our process.

MS. JANAIRO: Okay. Here's a written question from Ace Hoffman, are the difficulties associated with transferring the waste from the dry storage containers to transport containers considered, specifically, in regards to expected or unexpected degradation of the containers, the fuel rods, the cladding, et cetera, during the period you're looking at?

MS. PINEDA: In general, for the EIS, we're looking at the impacts of storing waste, so that includes management of the waste, so, yes, that would include, for example, we might look at what are the worker exposures for transporting from the pools to

dry storage? And as we look at, down the road, dry storage, what would be the impacts if you have to repackage that spent fuel that's on the storage pad?

So the answer is, yes, that the actions then that are associated with managing the storage of spent fuel are included in the scope of the impacts of storing spent fuel.

And the level of detail that we go into looking at the specific cases of what could happen when you transfer fuel from a pool to a pad, we'll again, be making some bounding assumptions. So it won't be the level of detail that you would see in a reactor licensing EIS, but we will need to look at that and make some bounding assumptions, and make conclusions about the impacts.

MS. JANAIRO: Okay. Here are two questions from Heather Westra. First, with respect to Assumption 6 on Page 11 of the report, can you explain what is in the last sentence? Here's the sentence, "however, in the event licensees cannot fulfill their obligations, the U.S. Government will provide sufficient resources and protection to ensure continued safe and secure storage."

Heather goes on to say, this seems to be at odds with a statement on Page 12, last paragraph of

the section, first sentence, and here's the sentence, "The waste confidence EIS will also assume that the current structure of financial assurances for spent fuel will continue to exist."

MS. PINEDA: Okay. Hold on.

MS. JANAIRO: So it sounds like in one place it's saying the assumption is things will continue as they are right now, but in another section it sounds like the government will be there to step in.

MS. PINEDA: Well, what we're trying to say is that there would not be a loss of financial responsibility. So we're assuming that the current framework is in place, but for purposes of doing the EIS analyses, we're also assuming that if there were an event where licensees could not fulfill their obligations, that the U.S. Government would step in and make sure that the financial resources were there.

So this is for the impacts analysis for the EIS, because if you make an assumption that you don't know what would happen if a licensee were not able to make their financial obligations, then you're running into a scenario -- I mean, it's more open-ended, so this is consistent with assuming that the waste is stored under an active regulatory framework

and that the resources are there to make sure that it's managed the way it needs to be managed.

MS. JANAIRO: Okay. And then Heather also had a question, how will the NRC consult with federally recognized Indian tribes impacted by this EIS?

MS. PINEDA: First of all, the NRC has a group that keeps in regular contact with the state governments, and also with the tribes, and for this webinar, I believe they have sent a letter to a number of tribes that have expressed interest in storage issues, notifying them about the webinar, also about the report, and about the email address.

And also encouraging them to, I believe, subscribe to the email address so that they receive communications. So we have an existing mechanism for communication with the tribes already within the NRC, but in addition to that, of course, as we get interest from specific tribes on this issue, we will be reaching out to those tribes.

For example, in the scoping process, we might decide that we want to have smaller group meetings with just the tribal organizations, so we will be reaching out to the tribes specifically, and that's part of developing our plan for, sort of, our

general communication plan over the next year.

MS. JANAIRO: Okay. Next, we'll go to Rick Moore, who has his hand raised.

MR. MOORE: Thank you, Lisa. Page 11 of your draft report, under the Section 8.1, preliminary assumptions, you have a statement that's at the very end of Section 5 and it deals with long-term storage saying, "some packaging of waste may, before disposal, would assume it's part of the disposal facility operations.," and then later in the paragraph you say, "potential further repackaging of spent fuel for disposal may also occur, but will not be considered in the waste confidence EIS."

My question is similar to the one previously, regarding repackaging for transportation, I'm concerned about repackaging for disposal if you are actually assuming, or assuring, as part of the process that, once a disposal facility is ready to do a repackage after extended storage, that it will be in a condition that is safe to do so, because it seems like that sentence says you're not going to consider the repackaging at a disposal facility as part of this EIS.

MS. PINEDA: Right, right, not at a disposal facility, but we are assuming that the spent

fuel is maintained in a way that is amenable to disposal. So it's repackaged as necessary to keep it in a condition so that it can be transported to a disposal facility, but if there were specific package requirements for the actual disposal facility, we're not including that particular repackaging in this.

MR. MOORE: But you are, included in your analysis, trying to reach a conclusion that it would be safe to repackage once it arrives there, is that correct?

MS. PINEDA: Yes. And it's possible that we would include in our analysis, you know, maybe, what would be the impact of some percentage of the fuel were not able to be repackaged for some reason. There's got to be a range of conditions of the fuel that we would be looking at for repackaging.

But the general assumption is that the fuel is maintained in a way that it can be disposed of.

MR. MOORE: I'd suggest that you look at that sentence in that last paragraph of Assumption 5, just try to clarify it a little better when you finalize the report.

MS. PINEDA: Okay. Thanks.

MS. JANAIRO: Okay. Thanks, Rick. Next,

we'll go to Moreen Conley.

MS. CONLEY: Hi, thanks for taking my question. I was hoping you could explain, in a little more detail, the decision in this EIS to include the impact of terrorism and does that represent an overall change in NRC policy? It's my understanding that, since the 9th Circuit decision, NRC's policy has been only to include terrorist impacts in cases in the 9th Circuit.

MS. PINEDA: Yes. That's the general policy, but the 2nd Circuit -- right, because the 9th Circuit ruled that that's what needed to be in the scope. The 2nd Circuit ruled in agreement with the NRC's position that it did not need to be included, but in the 2010 waste confidence update, we did include a consideration of terrorism impacts, and so this is to be consistent with that.

It's just that we're trying to be more inclusive in the analysis rather than excluding, and also, this EIS, it's not specific to the 9th Circuit, but the 9th Circuit is the more conservative in terms of the inclusive ruling, so it makes sense to include that information in this EIS rather than exclude it, as you could say that the EIS does apply to the 9th Circuit, even though it is generic.

MS. CONLEY: Okay. And if I could ask a follow-up question, the analysis that's being done for this EIS, will that be entirely classified? Will there be a publicly released summary or will it be a public analysis that will be entirely available?

MS. PINEDA: What I imagine is that there will be some information that may not be generally releasable to the public. I think how that works is, sometimes that information can be released if people sign agreements.

So there will certainly be a discussion in the EIS itself about the conclusions of impacts, but the details that led up to the conclusions in terms of the mechanism, I guess, for the terrorist attack, that kind of information would not be made public.

So I think it would be a combination of some information could be released, but I wouldn't be surprised if there was some information that we were not able to release.

MS. CONLEY: Okay. Thank you.

MS. JANAIRO: Okay. Next, we'll go to Gene Stone. Gene's line is not cooperating. We'll go to Jane Beetem. Jane?

MS. BEETEM: Hi, Lisa. I'm here.

MS. JANAIRO: Hello. Go ahead.

MS. BEETEM: The language in the document references a centralized storage facility, and I'm calling from Missouri, which is the geographical and population center of the country, and wonder if you really meant centralized or if you're talking about more consolidated storage, which might be in a less populated area?

MS. PINEDA: Yes. What we mean is storage all at one site. So maybe centralized is not geographically centralized, but, right, it would be a site that would be located somewhere in an area that's probably not highly populated, but I couldn't say where that would be. So it's certainly not geographically centered.

MS. BEETEM: All right. Thank you.

MR. RUBENSTONE: I think the distinction is just rather a number of storage facilities that are just a bit larger than the individual ones now, as opposed to one or more that were quite a bit larger than the way they exist now. Yes, not trying to make any geographic --

MS. PINEDA: Right. If you stored the spent fuel and high-level waste at, say, four regional facilities, you would have a certain set. The impacts would look a certain way. If you stored all of that

at one location, how would it look different? How would the impacts look different?

MS. JANAIRO: Okay. All right. Thank you, Jane, for that question. What we're going to do, we're going to go through the rest of the people who have their hands raised so we can get their question, hear what it is, and then we'll run a little bit over from the 2:30 scheduled end time so we can get through some of the list of written questions that we have.

David Snellings, you're next in the queue, but you need to enter your audio PIN in order for me to unmute your line, so we're going to skip you for now. I sent you the audio PIN. You should make sure you enter that and we'll go to Joseph L..

MR. L.: Hello.

MS. JANAIRO: Hello.

MR. L.: Can you hear me?

MS. JANAIRO: Yes, we can.

MR. L.: Yes. My question is that, I am a member of a local planning board as well as the emergency management coordinator in an URPA 2 town that is not a host. We have hundreds of townhouses and apartments that are coming before the planning board that's less than 3/8 of a mile away from dry storage.

The question is, we asked the state and the county what the safety aspects might be 20, 30, 40 years from now, because a housing development should last a couple hundred years. They all referred us to the NRC, but based on this confidence EIS, it seems like the football is getting kicked back downstairs to us.

And we have no technical expertise to determine whether we should approve apartments and townhouses, that should last several hundred years, so close to dry cask storage. What does a local planning board do?

MS. PINEDA: I think if you want very specific information for that facility, you could start at the NRC with the people that are involved in the licensing and oversight of that facility. And I think you could even start with the resident inspector, but that would give you information about that facility and the plans.

You know, how long that facility is planning to operate and whether there's a renewal already issued, or whether it's planning to have a request --

MR. L.: Well, you did not wish to be site specific, however, the site that I'm talking about is

scheduled to close in eight years, and yet, the dry cask will remain for hundreds of years apparently.

MS. PINEDA: Okay. Well, we are going to, as I mentioned earlier, have to determine how we will factor in, in terms of looking at the impacts, and this is a good point you're raising, extended storage of spent fuel, including at sites that are going to be decommissioned.

So you're talking about a potential socioeconomic impact or at least the socioeconomic decisions that are made based on knowledge of continued extended storage.

MR. L.: Christine, my concern is more than that, it's safety. The engineers who designed these dry casks are not willing to guarantee them from leakage for more than 60 years, and yet, we're trying to talk about confidence that goes into, not only 200 years, it's more like 250 and 300 years.

So again, we're a local planning board. We do not have expertise in this. Should we permit this housing or not? That's the question.

MS. PINEDA: It is going to continue under a license. The storage will continue under a current NRC license, so whatever is needed to make sure that that spent fuel is stored safely, the NRC would make

sure that that happens on the regulatory side.

MR. RUBENSTONE: Let me just jump in again. We don't want to confuse what we're doing in the waste confidence as making any policy decision about storing things for longer than the period they're licensed.

And the second issue is, yes, every engineered system has a design lifetime built into it, but the assumption that's built into our idea of continuing oversight is that, any remediation, repackaging, repairs, et cetera, that are needed to make sure that that facility is maintained safe and secure, will be done.

So it's less tied to the lifetime of an individual container to more than the idea that we have regulations that have certain standards for safety, and they will be met, and the owner of the fuel will take appropriate measures to meet those standards.

MS. JANAIRO: Okay. Thank you for your question, Joseph. Next, we'll go to David Snellings.

MR. SNELLINGS: Okay. I had questions relating to the relationship between the EIS and the BRC report, and those were answered. I had two of them, and those were answered previously, and I thank

you for the opportunity.

MS. JANAIRO: Thank you.

MR. SNELLINGS: Okay.

MS. JANAIRO: Okay. Then we'll go through the written questions. Here's a question from Don L., regarding the time period, why not divide this 200-year time period in groupings of, say, 50 years, as that would relate to future developments and storage that would equate to much less expense now?

MS. PINEDA: It's possible that as we do the analyses that it might make sense to group the analyses of the impacts into increments like 50 years or something, but again, we're not making decisions about programs or policies. So however we group it, or don't group the analysis, won't have any bearing on the actual regulation, but it is possible that it would make sense, as we get information from the analyses, to group the impacts in increments.

MS. JANAIRO: Okay. And here are two questions from Patti Davis, I'm going to try to combine them into one, well, I'll ask them together, shouldn't all storage sites have a minimum 50-mile evacuation zone, and then also, are there any sites, or aren't some sites too small to have 200 years of storage onsite? Like, with the size of a facility --

MS. PINEDA: Right, expansion. Let me respond to the second part first. It's true that there could be some specific sites that don't have the capacity to expand to hold the amount of spent fuel that would be generated over a couple hundred years, and so that's something that we will need to consider when we're determining how to do the analysis for the at-reactor scenario, is taking into account that some sites may not, and that's sort of a site characteristic is that, okay, they're located in such a fashion that they can't expand, the ISFSI cannot be expanded, so what do we do about that?

And that is something that we have to factor in. The other question about the 50-mile radius is a regulatory question that it's not my purview to answer that. It's more of a regulatory question rather than a question for doing the impacts analysis. And for the impacts analysis, we would assume whatever the current requirement is.

MS. JANAIRO: Okay. Here is a written question from Heather Westra, how will the generic EIS be used with respect to ISFSI license renewals? Will the generic EIS be used in place of an EA for ISFSI license renewals?

MS. PINEDA: If she's referring to this

EIS, it will not be used in place. It's possible that future storage NEPA analyses could refer to the analyses in this EIS, but this EIS would not take the place of those analyses.

MS. JANAIRO: Okay. Here's a question from Gene Stone, will the NRC do a baseline health study for all sites so we'll know before and after what the health effects will and have been? What will be the effect on property values when people know that they will be living next to a nuclear waste dump? So baseline health study --

MS. PINEDA: For this EIS, I don't think that we would be doing a baseline. We will use information in existing EISs to the extent that we need to do our impacts analysis, but we wouldn't be doing something like a new study of baseline health.

And then, oh, the property values --

MS. JANAIRO: Yes. Will you be assessing at all? Is that considered --

MS. PINEDA: That is considered to be a socioeconomic impact and so the EIS will be considering that in the scope of its impacts, but again, we'll be using existing information to the extent that we can. But of course, we want to make sure that we consider the significant factors for this

EIS.

So if now, or during scoping, people have specific input about, you know, something that is clear that would be a significant impact, that that's information that we would want to have.

MS. JANAIRO: Okay. Here's a question from James Knorr, will there be some assumptions on changes to environment, such as influx of endangered species or changing lake levels, or will this be covered during the licensing process for each ISFSI?

MS. PINEDA: Yes. That would be covered during the licensing process for each ISFSI. Endangered species is a good example. It's very site specific and when we have our generic sites, if one of the generic sites is located in a certain region with certain characteristics, in terms of the weather and the vegetation, that you could make some general assumptions about the types of wildlife that would be there, and the types of vegetation, but of course, you wouldn't be able to do an impacts analysis.

MS. JANAIRO: Okay. Here's a question from Joseph Ziegler, the existence of a need for this analysis seems to indicate that the Commission really does not have confidence that spent nuclear fuel disposal will be available within the next 200 years.

Wouldn't a long-term study about the technical issues associated with spent fuel aging make much more sense and provide real data versus speculative assumptions for a long-term storage EIS?

MS. PINEDA: The purpose of this EIS is to get a sense of what the impacts would be, but we are also engaged in analyses of the technical issues associated with aging spent fuel, and that's supporting the regulatory program, so the technical information that comes out of that activity could inform changes to our regulations.

And so the purpose of this EIS is to just get a sense of what we think the impacts would be if we were to store it for long periods.

MR. RUBENSTONE: Yes. There are parallel efforts going on right now to identify and define the technical areas that need to be considered for extended storage and we should have a report coming out, hopefully, within the next couple months that outlines NRC's views on that.

There are a number of other groups that have done some other work on that. There's a report, recently, by the Nuclear Waste Technical Review Board on that issue, and a report from the Electric Power Research Institute on a similar issue. And I think

the Department of Energy is also doing similar studies.

So those are going on in parallel, focusing on the technical aspects, and how fuel ages over time, and the potential mechanisms for degradation of the storage systems.

MS. JANAIRO: Okay. Here's a very specific question from Linda Seeley, how long are dry casks guaranteed to sequester radiation without release to the environment?

MS. PINEDA: I'll let Jim answer that if he can.

MR. RUBENSTONE: Dry casks in ISFSIs, are certified by the NRC for a fixed period of performance. It was originally 20 years. The regulations have recently been revised to allow certification for 40-year periods.

Same with the licensing of dry storage facilities. Again, fixed period, originally 20 years, now the new ones will have a 40-year period, and a renewal period for up to 40 years. And the reviews that are done at each stage of those are aimed to demonstrate that they are in compliance with the NRC regulations.

MS. JANAIRO: Okay. Here is a question

from Rod McCullum, there are considerable efforts under way at DOE, and industry, and internationally, to conduct research on extended storage of used fuel. How does NRC intend to factor in the results of this research and how might that affect the timing of the EIS?

MS. PINEDA: I can just say at this point that, this EIS, the endpoint for this EIS is 2019, which I believe is about when we would be getting, Jim could maybe clarify this but, some initial results from the various technical activities.

It could be that if technical information isn't available at the time we publish the draft EIS, and then it becomes available in the subsequent, and it's incorporated, or maybe it's incorporated into the final EIS and somewhat changes the discussion, or maybe it simply provides more of a basis for the discussion in the final EIS, or it could be that if information isn't available until after the final EIS is published that, once that information becomes available, we would need to revisit the EIS and make sure the conclusions are still sound, or if not, then we would have to issue, probably, an addendum or a supplement to the EIS.

MR. RUBENSTONE: Yes. This goes along

with what I said before about the technical work that's ongoing. I would hope that we have results coming in, you know, preliminary results coming in soon, and final results coming in further along. The technical program that NRC is developing has a similar time frame to the EIS, but as Christine said, we are not dependent on those technical results.

We are going to use the best available information and as the new information becomes available, either from the NRC's own sponsored work or some of this work being done, as pointed out, by other groups, like industry, we'll be looking at that and seeing how that would impact the analyses that we did, and if there are significant changes, we would consider issuing supplements.

MS. JANAIRO: Okay. There was a clarification from John Parkyn, just confirming that PFS is a national facility and answered these questions, I think Tim Runyon had asked earlier, why the NRC didn't use the information from the PFS EIS. So John clarified, it's a national facility. It's period of time was 40 years and beyond.

MS. PINEDA: Thank you.

MS. JANAIRO: Gary Headrick said, one impact from long-term storage onsite will certainly

result in extremely vocal and legal actions from local populations. The mayor of San Clemente could not participate in the discussion, but asked me to relay the statement that prolonged onsite storage would be absolutely unacceptable.

And Gary goes on to provide some information on San Clemente and that specific situation, but how does the NRC justify allowing this waste to continue to be produced when there's no viable long-term solution for highly radioactive storage?

MS. PINEDA: I'm sorry, can you repeat the last sentence?

MS. JANAIRO: It was a question, how does the NRC justify allowing this waste to continue to be produced when there's no viable long-term solution for highly radioactive storage? I think the -- go ahead.

MS. PINEDA: Yes, that gets to the question of waste confidence and the policy decision, but it also relates to our regulatory program that we have in place where we make sure that storage is occurring under a license, and that license is for 40 years, and if storage continues beyond the term of that license, there has to be a license renewal, which is accompanied by a safety review.

So the confidence that NRC has is dependent on continuing its regulatory program and making sure that the waste is stored safely under that program.

MS. JANAIRO: Okay. Here is a question from Emerald L., can someone tell me how many members of the public are participating in this webinar? It's difficult to determine who's a member of the public versus somebody representing an agency, but I can tell you that at least a 1/4 and probably more like a 1/3 of the 200 people who registered for the webinar were not representing a state or federal agency, or the private sector.

Here's a question from Don L., future developments in storage and/or disposal will make this 200-year period a huge waste of manpower and resources. I suggest that you reconsider the timespan to periods of 50 years at most since technology will change dramatically during that period. For example, think back 50 years from today.

MS. PINEDA: Yes. I agree that we are going to be speculating, but we do our site-specific licensing EISs for the period of 40 years for storage, so that would be covered under the site specific. So the burden of this really is just to get a sense, sort

of a big picture sense, of, if you're going to store spent fuel and high-level waste for longer periods, where might you see significant impacts?

And as I mentioned, some of those things that can be quantified more easily are things like land use, and exposures to workers, exposures to the public, and costs associated with managing the spent fuel, and making sure it's managed safely, and repackaged as needed, and as often as needed.

MR. RUBENSTONE: And again, it's important to remember that the purpose of an Environmental Impact Statement is to take a hard look at the situation and look at the potential impacts. It's not to make predictions about how things will occur. And if technology has changed, then the impacts may or may not change, and that will be assessed as things change.

I can understand suggestions that, where perhaps 200 years is too big an analytical period, but that's a decision based on, you know, what we think we can reasonably analyze.

MS. JANAIRO: Okay. We do need to wrap up in about three minutes, so we're just going to ask a few more questions and then all these questions will be preserved in Goto Webinar and we'll do what we can

to make sure the NRC staff can provide answers in some fashion.

Here is a question from Joseph Block, will the NRC consider utilizing existing studies on the robustness of fuel transportation casks with regard to terrorism concerns? It seems like the current studies already satisfy terrorism concerns.

MS. PINEDA: In that analysis, we are going to use existing information to the extent that we can. I think you might be referring to the risk study it's called sometimes, but yes, we would be using that information.

MS. JANAIRO: Okay. And here's a question from Sven Bader, for the scenarios considering regional and centralized/consolidated storage, will these be considered exclusively dry storage facilities, pool and dry storage facilities, or exclusively pool storage facilities?

MS. PINEDA: They would be considered exclusively dry storage facilities. The pool storage that we consider -- well, actually, I'm not sure if we would assume that pools would need to be located at those facilities for maintenance, but certainly, the main storage made at those facilities would be dry storage.

If there are pools there it would be for maintenance, but any pool storage that we're going to be looking at will be for the at-reactor storage site scenario.

MS. JANAIRO: Okay. Written question from Bob Halstead, in developing composite sites, will you identify the specific sites from which actual data was obtained for use in composite site impact assessment?

MS. PINEDA: Yes. That would be part of our methodology, so while it might not be in the EIS itself, there would be supporting information that would show what our process was to derive those composite generic sites.

And actually, going back to the pools real quick, I know there's one, I think, GE Morris that is pool storage, so of course, that might be the, sort of, oddball case where we have to consider pool storage that's not at an operating reactor site.

MS. JANAIRO: Okay. And then we have a comment from Charisse Roller, your seven-year schedule is too long. Check your assumptions, work scope options, et cetera, to improve/shorten the schedule. In all likelihood, conditions will change before you finish in 2019. And then -- go ahead. I'm sorry.

MS. PINEDA: I was just going to say, yes,

it's true that things could change. This end date is, I believe, to be consistent, or to be going in parallel, with the technical activities that are ongoing so that the EIS can incorporate some of that information down the road. So it is partly dependent on the technical activities.

MS. JANAIRO: Okay. And then finally, from Gene Stone, and my apologies to anyone who has a question that did not get answered, will there be public hearings on this or is the webinar today it? If that is the case, how fair is that to the public?

MS. PINEDA: There won't be public meetings specifically on this report. It's the webinar, but, as I mentioned, we haven't even begun the formal NEPA process, and when we announce the NRC's intent to develop an EIS, we'll announce that in the Federal Register and it will go out to our distribution, and it'll be on the Web site, and at that point, we'll have begun the formal NEPA process, and we will certainly be having several public meetings, and probably other smaller group meetings, as well as, I'm sure, several webinars.

So this is just a very preliminary outreach to get feedback on our early concept of the EIS.

MS. JANAIRO: Okay.

MR. RUBENSTONE: If I could just close out, Lisa?

MS. JANAIRO: Sure, yes, Jim.

MR. RUBENSTONE: And that's a good thing to build off of. As I said at the beginning, this is the beginning of the webinar. We're in the early stages of this process. We haven't begun the formal NEPA steps, which include a fair amount of public meetings, so people shouldn't think that this is their only opportunity.

But at the same time, because one of the reasons we put this preliminary report out for comments, was to spark some discussion and get people's public impressions of where we now think we're going. This is subject to revision and change as the process moves forward. And certainly as the national scene evolves, we will take that into consideration.

So I would just urge folks, especially if you didn't get a chance to get your question in here, to get us comments to that Web site, and I think we're displaying the Web site here for public involvement. There's a link there to the email address for submitting comments. You can also submit comments in

writing, and how to submit that is on the Web site as well.

So I would definitely encourage people to get their comments in early on this initial report. We will be finalizing this based on the comments and then moving into the next phase, but public involvement is a big part of our plans going forward.

And I'd like to thank everyone who participated. I'm not going to attempt to recap all the questions, because there were a large number of them, and I think it was a good discussion, and thank the Council of State Governments for co-hosting this with NRC.

MS. JANAIRO: Sure. Okay. Well, this is Lisa Janairo. Later this week watch for a follow-up message, which will have a link to the webinar recording and that recording will be on the Goto Webinar Web site. It'll eventually make it on to this NRC public meetings page, but if you want to view it before then, your best bet is the Goto Webinar link that you'll get.

And please remember to fill out the brief survey that'll pop up at the end of the webinar. This concludes our webinar. Have a great week everyone.

(Whereupon, the meeting in the above-

entitled matter was concluded)

Responses to Unanswered Typed Questions from January 31, 2012 Webinar on Draft Report of Long-Term Waste Confidence Update

Could a potential outcome of this activity be different Waste Confidence timeframes for dry and wet storage of used nuclear fuel?

The current Waste Confidence decision expresses confidence in the safety of spent fuel storage, in a combination of wet (spent fuel pools) and dry (cask systems) storage modes. It is possible, based on the results of the EIS and the technical research being conducted over the next few years, that the NRC could make a conclusion about the safety of storage for certain lengths of time specifically in spent fuel pools or dry casks. However, it is not likely that NRC would separately address wet storage time and dry storage time in the Waste Confidence EIS. If changes in licensing periods for dry or wet storage are determined to be necessary to ensure safety or security, these would be addressed under the reactor and storage regulatory programs in 10 CFR Part 50 (for spent fuel pool storage) and 10 CFR Part 72 (for dry storage).

Will an application for a long term solution such as Yucca Mountain be impacted by this EIS study?

The EIS being developed for the potential update of the Waste Confidence Rule has no impact on any specific application or other licensing action by NRC. The primary purpose of the EIS is to develop an understanding of the possible significant environmental impacts of extended storage. The staff cannot speculate whether and in what manner the Commission would revise the Waste Confidence decision based on the EIS results.

Is the NRC limiting design basis threats to ISFSIs based on an acceptable dose at the boundary of the Owner Controlled Area? If so, what is that dose?

This question refers to NRC's security requirements for dry storage. Design basis threats to an ISFSI are not based on dose, but rather on credible and likely capabilities of adversaries. Licensees design, develop, and implement physical security protection systems and programs to meet the NRC's physical protection requirements (10 CFR 73.55). The NRC staff uses potential adversary characteristics in conjunction with the physical protection requirements to assess the acceptability of the systems and programs. The NRC is in the process of proposing a rulemaking that would revise the agency's security requirements for the storage of spent nuclear fuel. The NRC has received significant public comments on a draft regulatory basis document, which considers in part a dose-based approach at the site boundary. Further information about this rulemaking activity is available at this web site: http://www.nrc.gov/about-nrc/regulatory/rulemaking/potential-rulemaking/isfsi-security.html

Were Depleted Uranium shells fired at the dry casks from AWOL A-10 warthog pilots

specifically considered? Someone stole a tank here in San Diego, drove it for miles over cars and onto the highway... and our own Congressman, Randy Cunningham, a former Navy pilot, went on a dangerous tear and went to jail too, so this is a fair consideration.

The staff will consider a range of terrorism scenarios such that the impacts described in the EIS will be bounding. Some scenarios similar to the one described by the commenter have been evaluated already in a number of analyses, and most of the analytical information for this work is classified. Some of these analyses, for example, consider the releases as a result of attacks in which a wide range of high energy charges impacted a range of transportation systems. NRC also evaluated the impact of jet aircraft on storage casks for the Private Fuel Storage license application and the effects of a 100-foot drop on a storage cask. In addition, studies conducted in the U.S. and in Germany involved the firing of charges at casks and an evaluation for releases. The NRC has used the results of these analyses in its security assessments for transportation casks.

Thank you for answering my first question, although you specifically mentioned "pool-to-pad" several times and I was specifically talking about going in and finding problems 300+ years from now! I hope my second question will be answered a bit more specifically...

The EIS will make assumptions based on available technical information about how often fuel might need to be repackaged to ensure a safe condition and compatibility with transportation requirements. One possible assumption might be that the cask is left untouched until it needs to be moved for transportation. Another assumption might be that the cask is repackaged several times during its time in storage and before being transported to a disposal facility. These assumptions for the EIS will not reflect the NRC's actual requirements for casks, because they are intended to cover the credible range of impacts for consideration in the EIS.

Research programs for extended storage and transportation being implemented by the NRC, U.S. Department of Energy, and others address potential technical issues that could affect the safety of long-term storage and transportation. The NRC may grant 40-year extensions of an ISFSI storage license if the licensee provides sufficient information for NRC staff to determine that the condition of the storage system is suitable for continued safe and secure storage. As part of its renewal, the licensee must have a suitable aging management and monitoring plan in place to predict, identify, and repair any damage that might occur during the period of that extension.

I am concerned about the economic impact of a dry cask facility that relies on a backup capability for emergency response at the pad that was not part of the original plant or renewed license for the plant proper.

The EIS will consider the costs of long-term storage, including major considerations relating to maintenance, security, and emergency response. For the EIS analyses, the

staff will need to identify an assumption that provides for long-term emergency response funds and capabilities over the long-term.

The NRC's requirements for financial assurance and recordkeeping for ISFSIs are provided in 10 CFR 72.30. Currently, these requirements do not include a provision for maintaining emergency response capabilities or funding for an ISFSI that remains after a plant is decommissioned.

I know you do not want to be site specific, but Oyster Creek is scheduled to close in 8 years....what happens 53 years from now? Who is responsible in case of damage or leak at the dry casks?

The Oyster Creek reactor operating license expires in 2029. If the licensee decommissions the plant, it may choose to leave the ISFSI in place and maintain a license to store spent fuel. The term of an ISFSI storage license is 40 years. The NRC may grant 40-year extensions of a license, but only if the licensee provides sufficient information for the NRC staff to determine that the condition of the storage system is suitable for continued safe and secure storage. As part of its renewal, the licensee also must have a suitable aging management and monitoring plan in place to predict, identify, and repair any damage that might occur during the period of that extension. The licensee has the continuing responsibility for the safety and security of the stored fuel, with NRC oversight.

Who will compel the licensees to transfer spent fuel rods from wet to hardened cask storage promptly? And who will enforce the timetable? How much radioactive waste is too much at a seismically-active site? Safe storage "will be available." This has been told to the public since before all the plants were built. We have NO confidence in this. If waste confidence is NOT a regulatory program, where IS the regulatory program located?

The licensee has the responsibility to manage spent fuel at its site, in accordance with NRC's regulatory requirements. Under current practices, licensees generally move fuel from wet storage to dry storage to accommodate new spent fuel from the reactor. NRC's requirements address the safety and security of fuel in both dry storage and spent fuel pools. Seismic risks, along with other natural hazards, accident scenarios, and intentional acts, are taken into consideration in NRC's licensing and regulation of casks and dry storage facilities. Licensees must show that they can store the spent fuel in accordance with NRC requirements, regardless of where the fuel is stored.

The NRC's regulatory program for spent fuel storage and transportation is implemented through the regulations at 10 CFR Part 50 (reactor operations, including spent fuel pools), 10 CFR Part 71 (transportation) and 10 CFR Part 72 (dry storage). Waste Confidence is a statement of general confidence in the safe management of spent fuel; it neither authorizes nor prohibits the storage of spent fuel.