UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

***

PUBLIC SCOPING MEETING ON INTENT TO PREPARE DRAFT SUPPLEMENT TO GENERIC ENVIRONMENTAL IMPACT STATEMENT ON DECOMMISSIONING OF NUCLEAR FACILITIES

Boston Marriott Copley Place
110 Huntington Avenue
Boston, MA

Wednesday, May 17, 2000

The above-entitled meeting commenced, pursuant to notice, at 7:30 p.m.

P R O C E E D I N G S

[7:30 p.m.]

[In progress.]

MR. SCALETTI: I'd like to introduce Dr. Michael Masni~~c~~k, who is my immediate supervisor and he's chief of the decommissioning section. And I'd like to introduce Mr. St~~ew~~uart Richards, who is the project director for -- project director for decommissioning.

Next, I'd like to tell you that the U.S. Nuclear Regulatory Commission was formed as a result of the Atomic Energy Act of 1953 and the Energy Reorganization Act of 1974. The NRC's mission is to regulate the national civilian use of nuclear materials; to ensure adequate protection of health and safety of the public; also, they actively protect the environment and provide a common defense and security.

The NRC accomplishes these missions through regulations, licensing, inspection, and the enforcement of nuclear power plants. The NRC regulations are issued under Title 10 of the United States Code of Federal Regulations. For commercial power reactors, the Nuclear Regulatory Commission function includes licensing to these facilities. A nuclear power plant license is based on a set of established regulatory requirements that ensure the design and proposed operations are performed based on radiological

safety standards.

The NRC conducts routine inspections to ensure the plant design and operations conform to the license requirements; that enforcement actions are taken in the event that we find that any of the license requirements are not being satisfied. The NRC's responsibilities for a nuclear power reactor are for the entire life cycle of the facility, construction through license termination. The NRC maintains the license and continues to regulate through the decommissioning process, until the license is terminated.

The NRC is concerned with nuclear power plant safety and, also, for the protection of the environment. The NRC, through the decommissioning process, that is the focus of this meeting tonight.

Why are we here tonight? I've just given you a brief background of the NRC's regulatory responsibilities and I'd like to discuss why we're here tonight. The first of this meeting is to discuss the generic environmental impact statement, or GEIS, on decommissioning of permanently shut down nuclear power reactors that the NRC proposes to write. We are going to describe the process set forth by the National Environmental Policy Act, or NEPA, for developing this generic environmental impact statement, as well as provide you some background information on nuclear reactor decommissioning. We will, in general terms, discuss

the environmental review. And, finally, and most importantly, we are here to listen to your comments and statements regarding the development of this generic environmental impact statement.

Today's meeting is not a formal hearing, but it is an opportunity for the NRC to gather information about the public's potential concerns regarding the environmental impact for decommissioning. The NRC will develop a generic environmental impact statement in accordance with the NRC's responsibility under NEPA. Today's meeting, also, provides for the opportunity to describe to you the steps that occur during the preparation of a generic environmental impact statement and indicate to you the schedule that will be used in developing this document.

The National Environmental Policy Act was enacted in 1969. NEPA places the responsibility from federal agencies to consider significant aspects of the environmental impact of a proposed action. It requires that all federal agencies do the systematic approach to consider environmental impacts during their decision making. The NEPA process is structured to ensure that a federal agency will inform the public that it has indeed considered the environmental concerns in decision making process and invite public participation to evaluate the process. This meeting is part of that process. This meeting is, also, required by

10 CFR Part 51 of our regulations.

What is NEPA? NEPA requires the environmental impact statement or assessment be prepared for all major federal actions. Supplements to drafts or final environmental impact statements are required when there is significant new circumstances or information relevant to the environmental concerns. This is a situation wherein the new regulations and the additional experience in decommissioning facilities and NRC believes that it is appropriate at this time to develop a supplement to the original generic environmental impact statement on decommissioning.

Generic environmental impact statements are allowed in cases where there is a need to address the generic impacts. There are numbers similar to proposed actions for similar facilities. The action you're looking at has been mentioned previously in the environmental impacts related to decommissioning of commercial nuclear power reactors.

What is a generic environmental impact statement? What exactly is a generic environmental impact statement for decommissioning? A generic environmental impact statement identifies the environmental impacts that may be considered generic to all nuclear reactor facilities. It, also, identifies the environmental impacts that need to be considered in more detail for a specific facility.

We have redundancy here. The generic environmental impact statement is used to focus the analysis in environmental impacts. It helps us determine which of these impacts are site specific and need to be considered separately in each -- for each nuclear power facility that is decommissioning and which impacts are generated -- are generic and can be evaluated as part of this generic environmental impact statement and then not be reevaluated every time a plant enters decommissioning. This allows us to spend more time and resources that are required to focus on the impacts that are necessary for a particular site.

The generic environmental impact statement is, also, used as the basis for determining if additional rulemaking is required, related to the environmental impacts on decommissioning from a decommissioning process. If it is determined that additional rulemaking is required, a generic environmental impact statement will serve as a basis for the rulemaking.

Why are we supplementing the existing generic environmental impact statement on decommissioning? The original document on decommission was published in 1988. It is over 12 years old. Since the original document was published, there have been new regulations related to decommissioning issued. In addition, since 1988, there has been an increase in the amount of decommissioning experience

in the U.S. Currently, 21 nuclear reactors facilities have permanently ceased operation. As a result, there are over 300 years worth of decommissioning experience, resulting in a lot of new information being available regarding environmental impacts.

The original generic environmental impact statement was published, as I said, in 1988, as NUREG 0586. It looked at decommissioning of all sorts of facilities that hold licenses with the NRC. The revised generic environmental impact statement -- we're only interested in permanently shut down power reactors and will not include decommissioning of fuel fabrication plants or independent storage facilities. It will be published as a supplement to NUREG 0586, so the information relating to decommissioning of the other types of facilities will still be contained in the original GEIS. The new information learned from decommissioning of commercial power reactors will contained in the supplement that is being developed this year.

The NEPA process follows certain steps and the NRC is required to follow this process, which provides the consistency of all EIS's prepared by all federal agencies. The first step in the process is the notice of intent, which is published in the Federal Register. The notice of intent informs the public that the EIS, or, in this case, the generic environmental impact statement, is being -- is going

to be published. The notice outlines what the process is going to be and advises the public to come in and participate, announces the location and times of public meetings, and designates the contact at the NRC for more information.

The notice of intent for this action was published in the Federal Register on March 14, 2000, and a second notice specific to this meeting in Boston was published on May 1, 2000. In addition to this meeting, public meeting -- a public meeting was held in Lisle, Illinois on April 27th and additional public meetings will be held in Atlanta and San Francisco.

The next step in the scope of -- the next step is the scoping process. Scoping is used early in the NEPA process to help federal agencies decide what issues should be discussed in the EIS. It helps us to define the proposed action. Scoping, also, helps determine any peripheral issues that may be associated with the proposed action, but are considered to be outside the proposed action's realm. Scoping identifies other related actions, such as other environmental assessments or EISs that are being performed by other state or federal agencies or that may impact the decommissioning activities. Scoping allows us to coordinate with the state and federal agencies early in the process. Public comments on the scoping process for this generic

environmental impact statement should be received by July 15, 2000.

Once scoping is completed, the NRC will perform an evaluation of the environmental impact associated with reactor decommissioning. The environmental evaluation will address the impacts of the proposed action in a generic matter; that is, the impacts that may occur in all or most decommissioned nuclear power plants. The alternatives to the proposed action and the impacts that could result from those alternatives will, also, be evaluated. Finally, we'll look at the mitigating measures, those measures that tend to be taken to decrease the environmental impact of the action.

After the NRC has conducted the environmental evaluation, we'll issue a draft environmental impact statement; in this case, a generic draft environmental supplement to NUREG 0586. And we expect that this document will be published in early 2001.

All federal agencies issue draft environmental impact statements for comment. After we've gathered the comments and evaluated them, in instances we may find that portions of the draft environmental impact statement may change based on those comments, we will issue a final environmental impact statement -- follow the resolution as to comments. This document, the final document, is anticipated to be issued in late 2001.

As discussed previously, the other related EISs that have an impact on what the staff is doing -- published EISs, in July of 1997, we list the radiological criteria that were used in the rulemaking for the various amount of radioactive material that can be left on site when the license is terminated. As a result of the July 1997 impact statement, the criteria of 25 millirem as total effective dose equivalent was adopted. This generic environmental impact statement or the July impact statement provides the basis for what the impacts to the public would be after the license had been terminated.

A final generic environmental impact statement was completed in 1982, to look at the impacts of low-level radioactive waste at license disposal sites. The impact of other waste that came from decommissioning plants was, also, considered in this final generic environmental impact statement. Finally, a draft EIS has been written for the geological repository for nuclear fuel -- spent fuel at Yucca Mountain in Nevada.

We highlight these EISs, because these areas probably -- will not be covered in the decommissioning generic environmental impact statement, because it had been previously considered. We will reference these documents and utilize the evaluation in them.

That concludes my presentation.

MR. CAMERON: Our stenographer is here and she was pulled out for us on an emergency basis, but I think she's getting everything back there. We can't see you, but -- all right.

Anyway, are there questions or comments on the information in Dino's presentation? They were process oriented. We're going to get into the substantive issues of potential kinds of decommissioning impacts after Eva's presentation. But, are there questions for Dino? Yes? And what -- let me give you this, and if you could just state your name and, if you want to, your affiliation.

MR. JUDSON: My name is Tim Judson and I'm with the Central New York Chapter, Citizens Awareness Network. The one question that I had was in regard to NEPA, and in your description about NEPA -- it talks a lot about, you know, consider -- that NRC has considered significant aspects of environmental impact and has to inform the public that it has indeed considered environmental impact concerns in its decision making process. And I'm wondering in return of the NRC understanding of NEPA, where ~~unfortunate~~enforcement comes in to that, in terms of having done a review of an action and -- in the case of having determined what is -- whether this stuff is very adequate, where ~~unfortunate~~enforcement action NRC has to take under NEPA.

MR. CAMERON: I think that is a real useful question to try to put into perspective for people out here exactly what an environmental impact statement does and does not do. For example, the regulatory framework, the regulations, themselves, might do. And I see that Steve Lewis has joined us from our Office of General Counsel and does that mean that he's going to take this question? All right, Steve?

MR. LEWIS: I just joined you, but I will take the question. We do not take enforcement of it. We do not measure whether or not we're going to take enforcement on the basis of doing an environmental impact we do. If there is a violation of a regulation, you know, we're going to take action and it will be done. That's the short answer to your question, unless I didn't fully understand your question.

MR. CAMERON: Could we reiterate again for people how the information in this environmental impact statement may be used again? ~~You know~~Dino, you've got a slide on that, but I think it's worthwhile to cover that again for people.

MR. SCALETTI: We plan to -- as counsel already said, that we do not take enforcement action based upon -- on NEPA evaluations. Any enforcement action was done directly related to whether or not our regulations are being

violated. But, we've used -- we use environmental impact statements, in this case a generic environmental impact statement, to help us to look at, as I said before, impacts that could be considered across the spectrum of reactors, in all -- ~~civil~~similar reactors that have similar impacts. We can do an evaluation, which we're required to do, when we issue, in this case, our regulation in Part 50. Part 5082 requires a license ~~determination~~termination or a license -- we stop -- we hold the site of decommission -- in two years, you have to file a post shutdown decommissioning activity report. In that report, you have to ~~prepare~~compare the evaluation of your operating environmental impact statement, how you met that, as well as generic environmental impact statements, which are updated now, so to make it more current. So, that's what we use it for. We have -- it's used to cover a spectrum of impacts that we can deal with generically.

MR. CAMERON: So, if a licensee -- if there's an impact at a particular plant that's undergoing decommissioning that is not bounded by the information in a generic environmental impact statement, then the licensee would have to address that in a site specific?

MR. SCALETTI: Site Specific.

MR. CAMERON: Okay. That's the distinction between generic and site specific. Debbie?

MS. KATZ: Deb Katz, Citizen's Awareness Network. What would trigger a site specific environmental impact assessment, in terms of an EA and instead of just the generic? What would the NRC use as the rule to determine that?

MR. SCALETTI: Well, I think right now, it's premature to answer that question. The process we're going through now is to look at what the impacts are and to see which ones we can cover generically and which ones we can't, and the process that's going to trigger this is what is being evaluated at this moment.

MR. CAMERON: Did you mean that in terms of specific type of impact or were you looking for information on just the generic process?

MS. KATZ: I mean, I think you guys have somewhat, at this point -- I mean, if you've done all of these decommissionings, you must have some sense of the site specific problems you've come up against at Yankee Rowe, Connecticut Yankee, a lot of different places. And what I'm asking for is just your thoughts on the process, not, you know, a hard, fast rule. But, the issue, we have -- in site specific evaluations and so we are sort of confounded by the lack that that happened.

MR. CAMERON: And that may be a topic that is going to fit -- or will be a topic, I think, that will fit

nicely into after Eva's presentation, because we're going to be talking about specific types of impacts. So, can we go into that, at that time, Debbie? Let's not forget to do that.

MS. BASSILAKIS: Rosemary Bassilakis, Citizen's Awareness Network. I guess my question is kind of similar to Deb Katz's. If you read a post shutdown decommissioning activities report, like, for example, the one for ~~Hadaneck~~Haddam neck is 13 pages long, not a whole lot of information in there. All the licensee had to do was to say they weren't going to go beyond a 900 ~~person~~person-rem and they weren't going to do anything to adversely affect the environment; very vague. And, in fact, the only time you really find out if they need a site specific is if they failed, and that's going to be too late.

MR. CAMERON: That's the generic -- that's the process question I thought that Debbie might be asking. Can you talk about the process for the preparation of the -- of a site specific environmental impact statement or EA? Can you put that in the reactor decommissioning process context for us? Mike?

MR. MASNI~~C~~K: I think -- this is Mike Masni~~c~~k. I think the important thing to remember, what triggers a NEPA review, and what triggers a NEPA review is a federal action. In the case of the decommission rules, as they presently

stand, there is no major federal action that takes place at the time the facility shuts down. The licensee declares that they've shut down. There is no licensing action on our part for that period of time.

Now, the Commission's regulations do speak of making certain that any action that occurs at the site is within the bounds of previously issued environmental assessments. And the Commission believes that a generic environmental impact statement can broadly accommodate those particular impacts at the majority of facilities and the majority of the impacts. Part of the process that we're investigating here is, is there certain site specific impacts that can't be dealt with in a generic sense. That's part of this process. We've identified a few and I thought there would be more than a few now. But, the bottom line is that there is no major federal action at the time that the plant enters decommissioning; therefore, there is no requirement on the part of the agency to do a detailed environmental impact statement.

MR. CAMERON: And Rosemary, we're going to -- I think the last presentation is going to go through not only the types of impacts, but what the stages are in the decommissioning process. So, we might want to revisit this for Rosemary when we get through that presentation.

Steve, did you want to --

MR. LEWIS: Yeah, I want to add something to that. It is certainly quite correct that the post-shutdown decommissioning activities report is quite a summary. It is, also, true that we do not necessarily require the licensee, at that point, to have specific decommissioning plans in place. I mean, it may, in fact, reflect the fact that decommissioning -- the development of the decommissioning for that particular facility is at a very formative stage.

The other thing I wanted to mention is that as part of looking at that PSDAR, we have established a practice, and it's being proceduralized now, to have one of our environmental specialist visit the site and using his or her expertise, satisfy himself that there is a basis in the analyses done by the licensee for the assertions that it makes that it is within the environmental bounds of the GEIS and site specific environmental reports, environmental impact statement. So, the regulation says exactly what Mike Masnick says it says. That's how it works. But, what we do is we probe behind it.

MR. CAMERON: Okay. We have a couple of questions here. We're going to let Tom LaGuardia and then come up to Jonathan. Tom?

MR. LAGUARDIA: Tom LaGuardia from TOLG Services. I don't know -- I don't think the group should leave with

the impression that the exposure levels that workers are getting every day is going to pass through a threshold overnight. These things are monitored every single day. They're tallied every week and so on. And as they approach the GEIS limit, they're going to be taking some actions to correct a situation, if the exposure levels are kind of excessive. And if they're 50 percent finished with the project and they are at 90 percent of the exposure limit, something is wrong. I mean, they'll stop the job and fix it. I don't want you to get the impression that overnight they're going to shift from 500 millirem, or whatever the measurement, to 1,000. It's doesn't happen that fast. The exposures are not there.

MR. CAMERON: Okay. I think that when we come back to Eva's presentation, we'll talk a little bit about occupational and that particular comment, I think, goes to our regulatory structure perhaps more than to GEIS. But, I think that it, also, may be relevant there. But, we'll get back to that.

Ray, let me go Jonathan first.

MR. BLOCK: Sure. My name is Jonathan Block, J-O-N-A-T-H-A-N, B-L-O-C-K, and I've been CAN's chairman since 1994. I wanted to bring to your attention Citizen's Awareness Network v. United States Nuclear Regulatory Commission, 59 Fed 3d. 284, appropriately hearing the 1st

Circuit in 1995, where between pages 292 and 293, you will find that the court made a determination, that has not been overturned, that said that in the case of the Yankee Rowe case, where they conducted the CRP prior to having a full decommissioning plan in place, that was a violation of NEPA.

We believe and we contend and are waiting to give opportunity that the Hobbs Act ~~enforces~~forces us to wait for, to challenge the regulations, because we think the rule that you made is illegal. We think that you'll have to have a large ~~DOD commissioning~~decommissioning plan in place up front, at the beginning of the decommissioning process; that that's what it means to comply with NEPA and that almost every federal agency of the United States Government that tries to carry out its charge to comply with NEPA manages to do something quite like that. And it's the agency -- ever since Calvert Cliffs, it never, ever learns.

We think that the way that you backed into this, put in the consideration process the potential for a real public hearing under Subpart G to the license ~~determination~~termination phase is a slap in the face of the people, who enacted that statute, and we just want to let you know that that's our position. And if your legal staff is here, I suggest they review the pages that I cited, because we think that if we ever get our chan~~g~~ce in the 1st Circuit, that the 1st Circuit will stand behind what it

says, because it ridiculed the logic that you use to authorize the ~~CRP~~LTRP at Rowe, which is essentially early component removal or what you call dismantlement.

MR. CAMERON: Okay, thank you, Jonathan, for that particular comment, which I don't think needs a response now. But, I think that, again, emphasizing -- I don't know if that particular issue will ever be addressed in the -- as a result of the generic environmental impact statement. But, it is possible -- I would ask a question to Dino, is it possible that based on the types of impacts that you find, that the NRC might change either its substantive rules or procedural rules?

MR. SCALETTI: Possibly, but, you know, right now -- again, we're very early in the process and right now, you know, we're --

MR. CAMERON: Okay.

MR. SCALETTI: -- this is a discovery process. We're looking for information.

MR. CAMERON: So, Jonathan's comment could be relevant to future changes?

MR. SCALETTI: And I saw our legal counsel writing notes very rapidly on this.

MR. CAMERON: All right. Ray?

MR. SHA~~v~~DIS: Just a procedural thing here --

MR. CAMERON: Ray Sha~~v~~dis.

MR. SHA∀DIS: I'm sorry. My name is Raymond Sha∀dis, S-H-A-∀D-I-S. I'm with the New England Coalition on Nuclear Pollution and I am, also, a member of the Community Advisory Panel on Maine Yankee's decommissioning, and it's just a procedural thing. Topically, we're talking about the structure of the generic environmental impact statement, so I think comments regarding what people's concerns may be, such as that offered by Mr. LaGuardia, they're out of place. That's a discussion for when we get into the specific subject areas of concern. But, I just -- I need to respond to that, in that when -- I believe when NEPA was originally drafted, that the intention of the drafters of NEPA were -- was, in part, the community issues be addressed, the community impacts be addressed. And in the generic environmental impact statement, I find that aspect limited and I'm talking specifically on the effects on human beings that have to live with the decommissioning and decommissioning process. So, maybe there are some areas that are not totally wrapped up by your generic environmental impact statement. Thank you.

MR. CAMERON: I think that's a legitimate point and I think we need to go back to that when we get down to Eva's presentation. Are we ready to go to Eva, at this point? It doesn't look like there's any more questions right now. Why don't we go to Eva? And thank you, very

much, Dino. This is Eva Hickey from Pacific Northwest Laboratory.

MS. HICKEY: Good evening. My name is Eva Eckert Hickey and I am the team leader with the Pacific Northwest National Laboratory multidisciplinary team for the development of the supplement of the generic environmental impact statement. I'd like to let you know that we have several -- many of our team members here in the audience tonight. Our team is made up of hydro geologists, ecologists, socioeconomic experts, cost experts, radiological health experts, and several other people in the field that will be helping us with this impact statement.

For the next few minutes, what I'd like to do is discuss decommissioning in general. I'll give you some background information of the process of decommissioning and how the NRC regulations relate to that process; and then I'm going to discuss the methods of decommissioning for a few minutes, the activities that we have seen occurring during decommissioning; and then I'll follow that with the experiences that we've seen from and the environmental impacts that have been associated with decommissioning.

So to begin with, I'd like to talk about what the definition of decommissioning is. And as you can see up here, it's the process of safely removing a facility from service, followed by reducing residual radioactivity to a

level that permits termination of the NRC license. This definition is key to this generic environmental impact statement, because we are talking specifically about the removal of radioactive material. So when we talk about the environmental impacts from that removal, we will be talking about impacts that may not be just radiological, and I'll talk about those later. But, we are talking about the socioeconomic impacts. We are talking about noise, the ecology, the hydrology. So, we are not limited to just the radiological impacts. However, those impacts have to be associated with the removal of radioactive material. And I'll try to continue to clarify that, as we talk.

So, a little bit of the background on decommissioning. I think some of this has come out so far. In 1988, when the original GEIS was published, at that time, decommissioning regulations required that at the end of the life, a reactor licensee had to submit a comprehensive decommissioning plan. By the mid-1990s, NRC had reassessed the value of that detailed decommissioning plan, based on experience that they were seeing with the licensees that were going through decommissioning. The experience showed that decommissioning was not really like construction of a facility, where a plan was laid out and specifically followed. Instead, there were two things that were noted during decommissioning that took place early in the 1990s.

First, early in the decommissioning process, especially if the plant ceased operations early, which is what we have seen in the last several years, the licensee could not really be too specific on the activities that would be employed during decommissioning very early on in the process. And secondly, the activities that were seen being conducted were not that different than those during operations at the reactor. For these reasons, NRC determined that it was not necessary to have the detailed decommissioning plan that had earlier been required.

So with that, let me talk a little bit about what the current decommissioning process is now that NRC has provided a new set of regulations. First, early in the process of decommissioning, the licensee is required to make two certifications, as well as providing the post-shutdown activities report that was mentioned earlier. The first certification is that operations of that facility -- of that plant has permanently ceased. This means that the licensee does not ever plan to operate that facility again. The second certification occurs after the fuel has been removed from the reactor vessel. These certifications are irreversible and the licensee may not load fuel back into that reactor vessel once these certifications have been made.

Now, the next thing that will happen early in the

process is that a post-shutdown decommissioning activities report, a PSDAR, will be submitted. I'm going to talk more about this report, what's in it and the purpose of it later on; but just generally, it provides a description of the decommissioning activities, a schedule of those activities, an estimate of the costs, and it talks, in general terms, about the environmental impact. The PSDAR is required to be submitted two years after the decision to permanently cease operating.

Also, within two years of permanently ceasing operations, the licensee must submit a site specific cost estimate. The cost estimate is used to compare against the decommissioning plans that the licensee has been required to establish, to determine whether they will have sufficient funds to complete the decommissioning process. Following the submittal of the PSDAR, the licensee is able to begin major decommissioning activities, including either immediate decontamination and dismantlement of the reactor, or placing the facility in long-term storage followed by subsequent dismantlement. I'll talk more later about the methods and the options for decommissioning.

Within two years of completing the decommissioning process, the licensee submits a license termination plan. This license termination plan includes a complete characterization of the site and the residual amounts of

contamination. It identifies the remaining activities that must be completed to complete decommissioning and it talks about the plans for site remediation. It, also, discusses the detailed plans for the final survey of residual contamination and it describes an end of use at the site. And, finally, it provides an additional site specific cost estimate. And, at this point in time, there is a supplement to the environmental report.

After NRC review and the final survey of residual contamination is completed and if it's determined that appropriate criteria has been met, then the license will be terminated and, at that point in time, NRC will not have any more oversight over that plant.

Okay. Let's get back and talk a little bit more about the post-shutdown decommissioning activities report. As I mentioned earlier, the document must be submitted within two years of a decision to permanently cease operations. As was mentioned, it does not have to be a lengthy report. It does provide a description of the planned decommissioning activities and it provides a schedule for meeting those activities -- for completing those activities. It has a site estimate of the cost for decommissioning and it does have a discussion of the environmental impacts, specifically whether the impacts from the decommissioning process are within the bounds of current

environmental reports or the GEIS. The PSDAR is, in fact, a summary description and major decommissioning activities are not to be started until the PSDAR is submitted.

Now, I'd like to discuss a little bit what the purpose behind the PSDAR is. It provides a brief overview on how a facility proposes to complete the decommissioning. And because it is not the detailed decommissioning plan that had previously been required, by giving the schedule, it allows for NRC to determine when they need to make their safety inspections prior to any major decommissioning activities being performed. And it, also, allows, because of the schedule of milestones, for NRC to allocate the appropriate resources to be performing their oversight. It allows the licensee to take another look at the situation and resources prior to starting the major decommissioning activities. And, finally, it ensures that based on the current planning for decommissioning, the licensee is within the environmental impacts or they must identify the environmental impacts that may not have previously been considered.

Okay, next, I'd like to talk a little bit about the methods of decommissioning. We have four of them listed up here: DECON, SAFSTOR, a combination of DECON and SAFSTOR, and ENTOMB. After I complete this discussion, then I'll talk a little bit about the environmental impacts from

the methods of DECON, SAFSTOR, and a combination of the two.

NRC originally envisioned three methods: DECON, SAFSTOR, and ENTOMB. I'm going to focus primarily on the first two methods. That's where we have our information. When the original GEIS was written, ENTOMB was considered not to be a viable option, because the regulations require that decommissioning must be completed within 60 years. And the process of ENTOMB is to take the radioactive structures, encase them in a structure with a substance, such as concrete, and then to leave the facility standing as is. So, it would not be decommissioned within 60 years. We will be considering in the supplemental GEIS entombment.

As industry has gained experience in decommissioning, it's obvious that most plants use a combination of SAFSTOR and DECON methods, rather than just adhering to one method; so, they are not really distinctive. That's why we have the combination.

Next, I'll talk about DECON and the activities that are performed during DECON. First are the decontamination activities. That's removal of contamination from systems, structures, and, also, the removal of large radioactive components. It includes dismantlement, which is the removal of piping and other generally smaller components. And it may, also, include removal of buildings, although in some cases, licensees are decontaminating

buildings and reusing them for energy production facilities or just leaving them in place. Transportation of waste to a storage facility is, also, one of the very important activities during DECON.

During SAFSTOR, this method involves placing the facility in a safe and a stable condition and such that it can be maintained until the facility is subsequently decontaminated and dismantled. The process has the advantage that during the storage period, the radioactive materials in the facility are decaying and -- which reduces the amount of radiological materials that must be removed from the plant and, also, would reduce worker exposure during the decontamination and dismantlement. However, since NRC has put a limit on the time that decommissioning must be completed, SAFSTOR and the subsequent dismantlement must be completed within 60 years of the plant ceasing operation.

Activities that take place during SAFSTOR include preparation of the storage, such as deactivation of systems, draining and flushing of plant systems, and performance of radiological assessments. During the storage period, the licensee conducts preventive and corrective maintenance and maintains the structural integrity of the facility. And as I said before, following SAFSTOR, then the facility is decontaminated and dismantled.

I'd like to look briefly at the reactors that we have experience with of decommissioning now. There have been 23 -- I mean, 21 reactors that have shut down between 1963 and 1998. Two of those reactors have completed decommissioning and had their licenses terminated. There are six that are currently undergoing decontamination and dismantlement. There are nine reactors that are currently in long-term storage and there are four that are planning a combination of long-term storage and DECON dismantlement.

Ray SHADIS: How many have submitted license termination plans and how many were accepted? I would think that was an important thing to include on that slide.

MR. MASNICK: Let's see, do we have -- we have the license termination plans submitted from Trojan, which has been accepted for review, but not approved yet or disapproved. I believe we just recently transmitted a request for additional information for Trojan. The second one is Saxton, which has come in and we've -- have we accepted Saxton? Yes. Okay, we've accept -- we've done an acceptance review on Saxton. And then the third is Maine Yankee, which we have, also, done an acceptance review. I believe that's it, at the present time. So, there are three in-house, but none have been -- there have -- none have resulted in a license termination.

MR. CAMERON: Okay.

MS. HICKEY: Okay. Briefly, these reactors that have shut down is eight boiling water reactors. Ten are pressurized reactors. There are three other types. And these 21 reactors are between 23 megawatt thermal, which is a very small reactor, up to 3,411 megawatt thermal, which is a fairly large size facility. The two facilities that have been -- completed decommissioning are ~~Ft.~~Fort St. Vrain in Colorado and ~~Shorum~~Shoreham, which was in New York and it was only operating for one day.

Okay, finally, discussing decommissioning, I'd like to talk just a minute about the license termination process. This is the final part of the process and a license termination plan, which was mentioned, must be submitted two years prior to the expectation for the end of the license. At this point in time, the licensee will develop a site specific environmental report and there will be a discussion of how any radioactive contamination will be dealt with, including contaminated soil or dirt.

The licensee will do a final radiation survey, using techniques and methods that have been developed by the NRC and the survey will be reviewed and verified by NRC. In order for the license to be terminated, the NRC must be assured that the dose to the public is below a specific stated require -- criteria. This process, license termination, is addressed in another generic environmental

impact statement, which we discussed earlier. After the process is completed, the NRC will terminate the license.

With that, I'd like to discuss just very briefly the type of environmental impacts that we will be looking at and I'd like you to remember that what we are doing here tonight is scoping. So, we've addressed some of the impacts that we envision assessing; however, we are looking for your comments as to whether there are additional impacts that we need to be looking at. I'm not going to go through the list specifically up here; but like I mentioned earlier, we are looking at impacts, whether they be radiological or non-radiological from the removal of radiological material. Also, what we would be doing, as we do our environmental assessment, is we will be looking at how the plants are different; the differences between a BWR, a PWR, the location of the facility, how long it operated, operating history and experience. All of those areas will be taken into consideration, as we address the impacts -- the environmental impacts of decommissioning.

As was mentioned earlier, written comments on the scoping will be taken until July 15th; appears the address where your written comments can be submitted. Dino Scaletti is the point of contact. And now, I'd like to turn it over, because we're really interested in finding out what you have to say.

MR. CAMERON: Okay. We have a few questions, I think, from before that are still relevant here. I think that Jonathan Block put a fine point on Rosemary's comment about the need for an environmental impact statement at the PSDAR stage. But, let's go to -- Deb Katz's question, I think, was do we have any idea of the specific types of impacts that are not engulfed by the prior GEIS and then we'll go to Ray Shavdis on certain types of community impacts and have him go into more of that. Debbie, did I phrase your -- frame your question correctly?

MS. KATZ: Good enough.

MR. CAMERON: Okay. Eva, do you understand what the question is?

MS. HICKEY: Would you repeat the question again?

MR. CAMERON: What types of -- do we have any idea of what -- let me have you --

MS. KATZ: Okay. I mean, you have a list of sites that you decommissioned up there or in the process.

MS. HICKEY: Right.

MS. KATZ: Is the great knowledge you gain from that --

MS. HICKEY: That's correct.

MS. KATZ: There have been then certain things that would trigger a site specific environmental impact study that you would gain from this process. What I'm

trying to understand is what would trigger what your thinking, at this point? I'm not trying to hold you to anything.

MS. HICKEY: Okay. Yeah, let me try to explain what we're doing in this environmental impact statement. What we're doing in this scoping process right now is trying to put some balance around those impacts and we will not be identifying the acceptability of those impacts. But, if a licensee falls within those impacts, then they do not need to make any additional environmental assessments. If they fall outside of those impacts, then they will need to make --

MS. KATZ: Well, I'm trying to get you to clarify what you think are some of those impacts that they could fall outside of -- I mean, from the experience you've had at the reactors that you've been involved with.

MS. HICKEY: Okay. Well, Mike, do you want to --

MR. ~~MASNICK~~Masnik: Yes.

MR. CAMERON: Mike Masni~~c~~k for clarification.

MR. MASNI~~C~~K: Debbie, I think what we've seen is that to some extent, the GEIS in 1988 has driven the licensees to perform the decommissioning at a -- in a very specific manner, and the reason is --for example, we came out with some estimates there, and I'll give you an example of man rem exposure. We said that a typical thousand

megawatt PWR would incur, I don't know, maybe -- I think 1,400 person rem of exposure for cleanup. That essentially establishes an envelope and what we have found is the licensees have now said, okay, that's a limit, in a sense, and as long as they stay below that limit, everything is fine. In fact, we were told the other day that a licensee deliberately did an additional type of cleanup, a full flush DECON, just because they were getting close to that limit and that's why they -- that's the way they went.

Now, what we want to do is based on that number -- that 1,400 man rem was based on some pretty good guesses that we did back in 1988 and to be honest with you, we did not have very much in the way of empirical data. So, now, we have, you know, 12 years worth of experience and we think that number is going to change and we think that the number is going to change downward.

MR. CAMERON: Deb, let's make sure we get this comment on the record.

MS. KATZ: I'm not just limiting it to man rem.

MR. MASNICK: Well, I'm not either.

MS. KATZ: For example, there is contamination on the site boundary at many reactor sites. What would trigger a NEPA reaction, in which there is an environmental assessment done, based on contamination in pools that have, in fact, gone under reactor sites. It's not just so much

man rem; I'm talking about contamination that can affect communities.

MR. CAMERON: While you're answering that, I think we're going to go to Becky Hardty, to offer some more on this. But, do you have any answer to that, Mike?

MR. MASNICK: Go ahead and let's see what Becky has to say.

MS. HARDTY: I'm Becky Hardty. I'm the project manager from PNL. Debbie, you know, I was going to like shut down, because I thought we weren't answering your question and so the question -- or the response I have, I don't know if it's going to answer it or not, but there are certain things that we know are site specific at specific facilities. Things like threatened and endangered species, that's not going to be generic. That's going to be something specific at each facility. Another one is the cultural impacts, if there is anything cultural, historical information, or archaeological, that will be specific at facilities.

And, also, I want you to be aware that we haven't conducted all of our environmental analysis yet and so we're not really prepared to talk about what those impacts are. We are still early in the process.

MR. CAMERON: We might circle back to this. And Ray, you -- Debbie mentioned the word "community" and that's

where you started. Can you tell us what your point was? I don't know if it coincides with Deb's or not.

MR. SHA∀DIS: I'm not sure.

MR. CAMERON: Ray Sha∀dis.

MR. SHA∀DIS: No, the process is ass backwards. You start out with this how I intend to spend my next summer on the coast sort of essay of 15, 16, 18 pages. Maine Yankee has gone three weeks after they announced that they were going to defuel. I mean, how deep could it be? How much information could you possibly wring from that little pistol.

And now, we start into this process of looking for a decommissioning contractor and then we lock ourselves into a fixed price contract, in the case of Maine Yankee. And now we start trying to adjust elbow room here for what we're going to do environmentally. And at some point way down the road, the community, which, in our case, reaches out to the states -- since we're a very small state, we regard ourselves as a community at large -- the community becomes aware of what's going on. State agencies become involved and they want to know about chemical contamination on the site. They want to know about residual radiation. They want to know about risk levels. They want to know whether or not there is off-site contamination. They want to know about the partial release of portions at the site for other

use. All of these kinds of community concerns come in, you know. I see NRC combining Part 50, Part 72 transition, so that you sort of slide into having an -- before you even know it. And, of course, there's no federal action, because it's under licensing.

And so, all of this stacks up and then -- and then two years before we're all done, toward the end of the process, then you have a license termination plan, such as it is. And I have had one utility ~~see~~CEO -- laugh about how trivial there license termination plan was, laugh about. You have that then dropped on the community and it is -- you know, 30 days after that thing is dropped, it's a fait complit. If you don't wade in there with legal and technical expertise to challenge it on some specific point of law, not whether they sense, but some specific NRC regulation, you're out of the ballpark. It's the absolute totally wrong way to go.

The first step, when a company makes the decision to shut down, is NRC doesn't need permission to say, oh, we need a schedule, so we can figure out when to do some inspections. NRC needs to go in and do an autopsy on that plant, find out what material degradation has taken place in the plant, how well it was in materially and physically managed, whether or not the maintenance was done. We need to examine the materials, to determine their deterioration.

In the case of Yankee Rowe, the question of a reactor vessel embrittlement is still up in the air.

That's what NRC needs to do. Why? So that you can apply lessons learned for other power plants and you can predict -- we're definitely going to be in the loop. And then -- and then the company needs to do a full plan and assessment for how they hope to do decommissioning and open that to the community. And we need NRC going in ringing bells to wake up the community to the fact that there's a major event that is going to take place here. Then, you can work your way down. And I think maybe at the end, you can submit your little summary paper.

But, that's -- I'm giving you the point of view from a citizen involved in this thing intimately, grappling with this decommissioning from the get go at Maine Yankee. And what we're finding is the company, itself, is regretting, at this point, that we didn't settle environmental issues at the front end; and now after investment and now after time, that we have to go back and revisit these things. So, that's -- I just want to offer that as -- it's our point of view.

MR. CAMERON: Okay. Thank you, very much, Ray. We're going to go over to Stu for a comment.

MR. RICHARDS: I just want to respond to Ms. Katz's comment about the materials spreading out beyond

site. I don't think that's covered under the GEIS. I think that's covered under the -- you know, the regulations we have for site release. And I guess the most I can say, when a licensee goes into decommissioning, they're required to characterize the site. They're required to go back and look at the amount of contamination that's been introduced into the soils, as best I can. And based on that site characterization, then they have to go forward and demonstrate how we're going to -- you know, the least --

I think what we're talking about here tonight is the environmental impacts of carrying out those activities to decontaminate the site and to remove radioactive material. So, it's a little bit different category. Of course, they are required, again, to characterize the site.

MR. CAMERON: Okay. I don't want to belabor this, but let me go over to you guys for clarification and then we have Tim and this young lady here, then we'll go back to the State of Maine.

MS. BASSILAKIS: Rosemary Bassilakis, again. I think what Deb Katz is referring to is the material that's been deposited offsite, off the licensee's site, the routine releases that have accumulated in the environment and non-routine accidental spills, leaks, discharges of all types, that have gotten into -- up at Rowe, contaminated offsite; at Yankee, in the discharge canal, pools -- huge pools of

activity under the site, at this point, still, you know -- 100,000 pico curries per liter -- things like that. From what we understand, if the licensee created this offsite contamination via routine, you know, discharges, they don't have to clean it up. But, that might not be the case -- even if that was the case, we think that's unacceptable; but even if that wasn't the case -- I mean, where is this getting addressed?

MR. CAMERON: Okay. So, the point is not the deliberate cleanup of the site, to try to get it down to the NRC regulations; but the point is, is that offsite contamination that might have resulted from releases that might have met the regulations or issues that people don't know about. Michael, do you want to say a final word on that?

MR. MASNICK: Well, I was going to say maybe Ron Bellamy would like to answer that question.

MR. CAMERON: You know, you're very helpful; you're very helpful. But, I -- and Ron, of course, explain, like, what your job is, so people understand your perspective.

MR. BELLAMY: I'm Ron Bellamy. I'm with the NRC's regional office. I'm chief of the decommissioning branch there and all of the onsite inspections that are done at the four plants in the Northeast during the decommissioning are

under my management supervision.

Rosemary, we've had this discussion. I think what you want us to say and what we've got to say is that effluent -- normal releases during the rest of the plant's life time that were done within our regulations are not part of the decommissioning process. As you know, ~~Hadaneck~~Haddan Neck has taken a very strong outreach program with the community and they have contacted everybody they can and, you know, you've heard their management say, anybody that wants material out there brought back to the site, we'll bring it back to the site and they've done that. But, that's just out of the goodness of their heart. There's no NRC requirement or regulation to do that.

[Off mic.]

MR. BELLAMY: What Sal's comments is, that there were some illegal releases of radioactive material during the plant's operation. And it's really tough to use the word "illegal" here. We've seen -- we've seen a significant increase in the quality of measurement techniques for these radioactive blocks that are offsite. Those -- there were some blocks released offsite that shouldn't have been released offsite. You're absolutely right. And those that have been identified are being brought back to the site for disposal.

MR. MASNI~~C~~K: I just might add one other thing and

that is that remember when these plants were licensed, there was an environmental impact statement that looked at routine releases and that evaluated those releases. So, that particular impact has been evaluated.

MR. CAMERON: I realize this is an important issue that we're talking about here, but I think we're going to move on to get back on scope; then, we can come back to this issue. I want to make sure that Tim and -- we'll go to you first. Okay, Tim?

MR. JUDSON: I had a couple of questions about the presentation that Eva gave, but first I want to just sort of, you know, address something that, you know, that should have been -- you know, I think beneath the surface of the exchange we just had, which is the NRC's notion of the site boundary, you know, as though there is this fence they just built that somehow magically keeps contamination within that area and that the utility doesn't have to address, you know, how contamination gets outside of it at the get go. And I think this has left -- you know, Mr. Shavdis was talking about, in terms of the process being ass backwards, you know, is that you only deal with those, you know, instances or processes of contamination. That is truly a significant, you know, piece of what goes on, in terms of -- you know, what affect these things have on the community.

Now, going back to Eva's presentation on the

decommissioning process, that slide, and you refer to, you know, the experience thus far in decommissioning and two of the qualities of that. One of this has been that when plants -- you know, reactors are shut down early, that that has, you know, made it difficult for the licensees to comply with the other requirements with the PSDAR that they did -- that they do, you know, a two-year plan before the reactor shuts down. You know, that has somehow compromised their ability to comply with the way the regulations are written. And, you know, I've actually -- we've actually heard this -- this, also, presented by -- you know, in another forum.

MS. HICKEY: Okay, let me clarify. I didn't mean to imply that. What I meant to imply -- say was that when a plant shuts down early, prior to when it was expecting for its license to be terminated, it probably has not done the pre-planning for decommissioning that it would, if it knows five years from now it's going to be -- its license is going to be terminated and it's going to be going into decommission. They start thinking about a plan. There are several plants out there that have been shut down typically to do some sort of modification and they just make a decision not to reopen. The planning has not been performed until that decision has been made.

MR. JUDSON: I'm going to rephrase it, because this is exactly sort of what I'm talking about, is that

implicit in that description seems to be just a notion that as soon as the plant shuts down, the decommissioning process needs to begin. And, you know, reactors, you know, shut down, you know, for periods of years at a time to do maintenance and then go back on line, you know, without any need to -- you know, to begin a decommissioning process or some other sort of licensing process. And so, we're wondering why there's this assumption that when a reactor shuts down, you know, early, that this has somehow interfered with its ability, you know, to go into, you know, a three-year planning of years for a PSDAR, and why that -- why it isn't the NRC's default action is to require a period of SAFSTOR, in which the licensee does that thorough planning for decommissioning.

MR. CAMERON: Okay. Thank you, Tim. And I'm keeping a list of everybody who wants to talk, which is almost all I can see at this time. But, let's -- do you have anything to add?

MR. MASNICK: Yeah. I was going to say I think that was a good comment.

MR. CAMERON: All right. Okay, yes? And if you could get just give your name.

MS. FLYNN-JAMBECK: My name is Katie Flynn-Jambeck, Citizen's Awareness Network. I have a further question about the process of this -- the environmental

impact statement would address the site. The generic environmental impact statement would address the decommissioning plan or decommissioning process? It seems curious to me that without a decommissioning plan, what exactly are you determining?

MS. HICKEY: Well, what we are doing is looking at the specific activities that are conducted during decommissioning. We're gathering data from those activities and making -- analyzing the environmental impacts from those activities.

MS. FLYNN-JAMBECK: So, it would be after the fact?

MS. HICKEY: Pardon me?

MS. FLYNN-JAMBECK: After the fact? When would the finished document be used?

MS. HICKEY: Okay, that's -- okay. I understand your question. That's a good point. From the licensee's perspective, that document can be used and should be used from the time the decision is made to permanently cease operations, because every activity that they --

MS. FLYNN-JAMBECK: Used to do what?

MS. HICKEY: Pardon me?

MS. FLYNN-JAMBECK: Used in what way?

MS. HICKEY: Okay.

MR. MASNICK: Eva?

MS. HICKEY: Okay, go ahead.

MR. MASNI~~C~~K: Let me tell you that decommissioning is a series of activities or changes to the facility over time, that result in basically -- of the radiological -- I mean, that's kind of a generalized, this definition. But those changes to the facility result is someone going out and doing something. They're removing pumps. They're processing material. Each time a licensee does that, they typically -- well, not typically, but they're required to -- if they make a major change to the facility, they have to look at what the impact of that change will be on that facility. Now, there's a safety component that's required; but there's, also, in the procedures that the plants have, a requirement for them to look at whether or not that particular action will exceed any of the previously issue ~~of~~d environmental assessments associated with that facility.

Operating plants do this on a routine basis. We go -- our inspectors go out and we look -- a plant might have 50 or 60 significant changes during the year and, you know, the steam generator removal, a major component removal during decommissioning, and what we see in there is some screening documents, and they look at a lot of things. They look at whether or not it's an increase, for example, of a possibility of fire at the facility. They look at --

MS. FLYNN-JAMBECK: Are they still allowed to go

forward?

MR. MASNICK: Well, if they identify that there is a problem -- and let's look at the environmental, since we're talking about it tonight. Let's say they are going to generate a certain amount of release. If that waste is in excess of what was predicted in previous environmental assessments as being acceptable, they will stop that and then they'll reevaluate it and they can't -- they can't essentially take that action.

MS. FLYNN-JAMBECK: They can't essentially or they can?

MR. MASNICK: Well, they cannot, okay. But, what will happen is --

MS. FLYNN-JAMBECK: They can or they can't?

MR. MASNICK: They cannot, okay. The review process would end there for the licensee. And they may -- they may have a work around; you know, maybe it's volume over time. Maybe they'll wait. Maybe they'll look at it. If it's an exposure issue, maybe they'll figure out a different way of doing the job to reduce the exposure. We come back -- the NRC comes back and we look at those evaluations. And that's one of the things -- for example, when I go to a plant and I check these changes, it's one of the things I look for. So, there is some utilization of that assessment for that particular activity.

MS. FLYNN-JAMBECK: It seems a little bit more like license termination. When you have a license termination plan, you have (a) a plan; and (b) environmental impact statement to accept the plan. And it seems to me in this process, the missing component is the decommissioning plan.

MR. MASNICK: Well --

MS. FLYNN-JAMBECK: Otherwise, it's kind of just touch and go.

MR. MASNICK: Let me --

MS. FLYNN-JAMBECK: I mean, do you --

MR. MASNICK: Let me just -- let me talk about that a little bit.

MS. FLYNN-JAMBECK: -- why it's now not part of the process.

MR. MASNICK: Okay.

MS. FLYNN-JAMBECK: You're saying before it was there and it was used in the planning document, used in the environmental impact statements. Why did you remove it?

MR. MASNICK: Let me talk a little bit about that. You know, I used to do decommissioning plan reviews. In fact, I was the project manager for the Trojan plant and we did get a decommissioning plan and we reviewed it. I spent a good part of one year of my life doing that review. The problem I saw immediately was that that plan was very, very

tentative and sketchy in the fact that a lot of the details that we all expected weren't really in that plan. And one of the reasons why those details aren't in there is because that -- at the time that that document is submitted, many of those things aren't worked out, okay.

The other thing we found out was that the majority of those actions that occurred were the kinds of things we see on a daily basis at nuclear power plants, okay -- removal of pumps. Even things like steam generators, which are massive components, those things are done on, unfortunately, a more or less routine basis. It became apparent to me and to the NRC staff and certainly to the industry that these documents really didn't result in us making any determinations that improved safety or even impacted to a great extent.

If we looked at the environmental aspects of these things, they were very -- you know, the licensee had to submit an environmental report -- an update to their environmental report, under the old regulations, and those -- that environmental report basically carted back what we had with the GEIS. There was nothing really new or different in there.

And I think from our perspective, we said, gee, here's the process that really didn't add a lot, from the standpoint of public health and safety; involved a

tremendous amount of resources on our part, to review and approve this things; and gave us a document that was not a living document. I mean, the licensee -- as decommissioning goes on, they have a tendency to change the process, depending on new technology, depending on the availability of money, depending on a number of other factors. So, again, you know, to do this massive review, at one point in time, from our perspective did not seem to indicate any significant improvement over health and safety.

MR. CAMERON: And Katie, do you want to make a --

MR. MASNICK: Let me just finish one last thing. The one mistake we made was we made the PSDAR a requirement at two years, because what that did was it made all -- the PSDAR was a substitute for the decommissioning plan, and it is not. It is clearly not. The PSDAR, as you've said, is a document that's used for us to do planning. It was a -- we wanted the licensee to say, hey, before you actually get started on this thing, look at how much money you have and make sure that you have enough money, if you're going to get involved in DECON or have enough to do the job safely within the time period that you expect.

The PSDAR was not submitted -- it's not submitted on the part of the licensee for a review. But what we wanted was the licensee to go out and say, okay, now that you've decided what you plan to do, just make sure that it

falls within the envelope of what you considered before, okay, and basically give us a certification, because that's what it is. Now, as Steve identified earlier -- or talked about earlier, we look behind that certification. We go out to the site and say, okay, you've made this statement that you are within the bounds of the previous documents -- previous assessments, show us how you do that or how you came to that conclusion. And we look at their environmental outputs that they have on site. We document that during the inspection.

MR. CAMERON: Katie, you have a final point?

MS. FLYNN-JAMBECK: It seems that you do go through all of these steps when you're doing license termination. You do require a license termination plan that requires similar -- a similar process up front. And kind of what I heard you say is that we asked them for it, they did not do it well, and so we stopped asking them.

MR. MASNICK: No, I didn't say --

MS. FLYNN-JAMBECK: No, that's my --

MR. MASNICK: I didn't say that we didn't do it well.

MS. FLYNN-JAMBECK: Not that you didn't do it well, but they were not able --

MR. MASNICK: That a lot of the decisions that are made early on like that are early decisions. Now, when we

get to the license termination stage, I mean, we're supposedly close to the conclusion of the actual decommissioning process.

MS. FLYNN-JAMBECK: It seems though that you could have a plan that would be amended when changes were made in other forums and public hearings, similar to what you do with the license termination plan, where you do require an up-front methodology that needs to be approved, that there is limited chance of public input on. I, also, just have to object, because you said it, to decommissioning not being different than the operating of the plant. It's -- I mean, if it wasn't, we would all be in --

MR. MASNICK: Well, I'm saying that the activities that occur during decommissioning are not very different than those occurring in operating the plant.

MR. CAMERON: Okay. That's another comment on the -- on perhaps the deficiency of the regulations. We're going to go to Dale Beckner. And for those of you, who had your hands up before, I'm keeping track and we'll get back to you. Let's go to Dale. Let's go to George.

MR. ZINKE: I've got a question on the GEIS process that -- you're doing a number of scoping meetings across the country, as this one, and you're asking for comments by July 15th. And then the next date you've got is the draft coming out in early 2001. Are you planning on

communicating back to the public, as far as the results of the meetings and what your decision on the scope is going to be?

MS. HICKEY: Yes. That was something I meant to bring up. That's a good point. Yes, we will be putting out a summary document on the comments that we've received from the scoping meetings and as well as any other additional written comments that we receive.

MR. CAMERON: Okay. Since we're back here, let's go to this gentleman for a question.

MR. PERDOMO: I'm Fedorico Perdomo. I work for Connecticut Yankee. We've been in contact at Connecticut Yankee with the National Park Service and I notice in your slide, you indicate historical and archaeological.

MS. HICKEY: Yes.

MR. PERDOMO: I'm wondering if you're talking about the National Park Service's requirement for HAER, the Historic -- I believe it's Historic American Engineering Record, recordation of a facility. This is where they're interested in recording the engineering achievements that a facility may have --

MS. HICKEY: Oh, no. Well, what we're looking -- well, that's a point. That's a comment -- maybe we should be looking at that. But, what we've typically been looking for are the cultural and archaeological sites that have been

identified on the site and those may be impacted during decommissioning.

MR. CAMERON: Okay. Thank you for that comment. We're going to go to Deb Katz and Ray Shavdis and Jonathan Block. Let's get this on the record, clarification of the acronym that he used.

MR. PERDOMO: Yeah, it's the National Park Service. They use two acronyms. It's HAB and then the other one is HAER. The HAB is Historical Architectural Building and the HAER is Historic American Engineering Record. The National Park Service and see why -- the National Park Service is talking to us and we're going to do a recordation of Connecticut Yankee plant.

MR. CAMERON: Okay. Thank you. Let's go to Deb.

MS. KATZ: What I wanted to just raise was a kind of inconsistency. It's something that's really confusing for us, which is you talk about the fact that decommissioning is similar to operations. Well, in operation, what you have is an FSAR, which, in fact, the NRC has called a living document, which is there from the beginning that is used to operate the reactor. And from what you're describing, there is nothing like that with decommissioning. The PSDAR, we can all agree, doesn't exist. And what seems to happen, through a series of license amendments, there are changes made to the facility

and that things change as they move along. Well, one, there is no line for the public to be involved in that process and things are constantly in motion; and two, a number of the exposures that we see at Yankee Rowe and other reactors wouldn't take -- have taken place, if, in fact, there had been a document that was being worked from, that had been settled on ahead of time, may be amended. Now, maybe 50.59 was -- whatever you put the FSAR under -- I'm certain it's 50.59, but in the FSAR from the beginning, they -- you amend it now to, in fact, have deconstruction plans put in them, so at least someone is in some sane world of dealing with this, as a whole picture, rather than segmented schizophrenic process that the public is locked out.

MR. MASNICK: Yeah, I can respond to that quickly.

MR. CAMERON: It's Mike Masnick.

MR. MASNICK: First of all, I want to clarify again what I -- if I misspoke, I want to clarify that the activities that occur in a decommissioning plan are similar to those that occur at an operating plant, with respect to removal and deconstruction of the facility. Those kinds of removals of pumps happen all the time at an operating plant, removing and replacing pipe.

Decommissioning plants are not exempt from the requirements to have an FSAR. They have -- they typically call it a DSAR, or a decommissioning safety analysis report,

and that -- those are updated upon the same schedule that an FSAR for an operating plant. So, there is such a document.

MR. CAMERON: Okay. Thank you. We're going to go to Ray and then Jonathan and back up here to Mary.

MR. SHAVDIS: Ray Shavdis. You were very general, in terms of saying what stimulated this scoping for a supplement to the guides. You know, there's the reasons in your rules -- in other words, new information, da ta, da ta, da ta. But, what new information? And now, you've got two plants decommissioned, but then what information is informing -- what initiatives within NRC -- I mean, what kinds of things are you looking at? If no one showed up tonight, you'd have to go do this anyway by your little lonesome. What would you do? What are the things that you think you're going to be plugging in to the GEIS to supplement it?

MS. HICKEY: Well, I mean, I put up a list of the impacts that we have identified from our experience and from discussions that we've had with people at the NRC, the NEI, and some of the utilities, so we have a framework for what is going to be in that. Now, are you asking specifically what has happened in the decommissioning realm that has motivated this need to update the GEIS?

MR. SHAVDIS: Yeah. I may have -- when you put up this list of specifics, I --

MS. HICKEY: Okay.

MR. SHAVDIS: -- thought there was a list -- topical list of -- you know, of concerns, but not a list of specifics.

MS. HICKEY: Well --

MR. SHAVDIS: My initial take on this was that you folks wanted to put in some of the industry initiatives, like rubblization, into your guidance, and maybe there were a few other things. What did I miss? Take that data --

MS. HICKEY: Yeah. Well, those --

MR. SHAVDIS: -- those are going to be referred to specifics, that specifics for land use, specifics for water use, that you run into, but otherwise it's just a list of --

MS. HICKEY: No, we will be. We will be analyzing and determining what those impacts are. As to your question on rubblization, yes, we will be -- we will be addressing that issue in the GEIS. Okay, entombment is another issue that we will be addressing, that's not in the current GEIS. Somewhere in the --

MR. SHAVDIS: I think that's -- I mean, those are the --

MS. HICKEY: Those are the two main ones. There are some other --

[Off mic.]

MS. HICKEY: That's okay. No, no --

MR. SHA~~V~~DIS: Did you find anything in all of this experience that you've had? This scoping process, did you find anything at all that would make you want to make that GEIS more conservative, to put in tighter ~~scriptures~~strictures anywhere? Or is it -- or it is totally in the realm of permissiveness, as in let's permit rubblization maybe?

MS. HICKEY: Well, okay, let me make it clear that, at this point in time, we have not determined what those boundaries are, because we've not done the environmental analysis. We have found through experience that we have seen differences in the amount of waste material generated in the site. We want to analyze that and evaluate that, make a decision whether that boundary should be changed in the scope of our GEIS. Likewise, we're looking at the occupational doses. In some cases, those tend to become even lower than what was in the original GEIS. We need to do an evaluation of that. Does -- do those boundaries need to be adjusted?

MR. SHA~~V~~DIS: Just to clarify --

MS. HICKEY: Okay.

MR. SHA~~V~~DIS: -- any of this about bad news? It's all limits. I mean --

MR. CAMERON: Ray?

MR. SHA~~V~~DIS: Well, if it was bad news, we'd be

talking about making -- perhaps making the boundaries wider. And we're not -- we're not making a discussion of whether they're wider or narrower. We haven't made those decisions yet.

MR. RICHARDS: Again -- this is Stu Richards, Ray. One of the reasons we're here tonight is to ask that question -- to ask the question, what should be within the scope of this thing? I mean, we're here to ask you -- Ray, we're here to ask you what is not in the environmental impact statement that you think should be there. So, again, you're going to come back to a reason for this meeting. We're seeking input from the public on what should be included and you're asking us what should be included. Well, we've given you two examples and we said we're going to update the standing generic environmental impact statement with experience gained from the last two years. So, you know, you're asking us to answer the question we're asking you, Ray.

MR. SHAVDIS: It's hard to believe, okay.

MR. CAMERON: Wait a minute, let's -- let's just take this one person at a time and let's get it on the record. Now, Ray, just say -- make a final comment right now and then we're going to go to John.

MR. SHAVDIS: It's not a comment. It's an attempt to clarify a question, and you may be surprised to learn

that English was actually my second language. What I want to know is what stimulated you folks, other than plain curiosity as to what the public might be thinking, to -- yes, required by new information, new whatever, what stimulated you to get into this scoping thing, other than you want to do rubblization and maybe talk about entombing, you know? I mean, whether every other things that are coming down the road that we'll be looking out for, that are coming from the industry, being met through NRC, that are going to change the dice, to make it even slacker than this?

MR. CAMERON: Okay, I think the question is why are we doing this now? So, we're going to Dino.

MR. SCALETTI: Dino Scaletti.

MR. CAMERON: Tell it, Dino.

MR. SCALETTI: Well, you know, to respond to your comment, as I mentioned earlier, we have now over 300 years worth of experience. We have information coming out of Maine Yankee. We have information coming out of ~~Hadaneck~~Haddam Neck, out of Yankee Rowe. We have plants that have gone into SAFSTOR, such as Zion. In instances -- specifically I know Zion is my project -- the radiological exposure is about half -- they're projecting about half of what is in the generic environmental impact statement and, so, therefore, you know, what we would expect, that these ~~envelops~~es may be shrunk. And so, it's certainly not bad

news, I mean, if we're constricting the envelope in certain instances, based upon the existing data that we're getting from the decommissioning plants. And this is the reason why we're doing it. We know there's data out there and we know that the 1988 generic environmental impact statement was based on a lot of estimates, not to say that the information provided there is bad information and not to say that it's not acceptable information. But, if we're doing a generic statement, then -- and we will define the envelope, then this is why we're updating it at this time.

MR. CAMERON: Okay.

MR. SCALETTI: The time is ripe to do that.

MR. CAMERON: All right. We're going to go to Jonathan and then Mary and then go over to Darryl. Jonathan?

MR. BLOCK: Yeah. First, I had a question for Eva, just as a clarification. Did you say that you -- that your -- you're from PNN Laboratories, is that it? ~~Yes, sir.~~

MS. HICKEY: Yes, sir.

MR. BLOCK: That your team has already had discussion with the utilities and NEI; is that what you said?

MS. HICKEY: What we have done so far is talked to NEI about the process of how we're going to obtain the data that we need to make the analysis for the environmental

impacts. And, also, in our planning process, we have made several site visits and we have several more than we're going to make. This is all in preparation for how are we going to gather the information and analyze the environmental impacts.

MR. BLOCK: And was that the extent of the discussions you've had with them? Was that the extent of the discussions? You're going to do a transcript of your discussions with us and I am really interested in having a transcript of the discussions you had with the NEI and the utilities. I think that would be great, you know, if that's available.

MR. SCALETTI: We have -- we had, basically, two meetings with NEI. One was an introductory meeting, to establish contacts, which are being summary -- has been issued already. The second meeting that we had with NEI was more formal. It was -- the meeting was announced. A summary will be prepared. I've been out of the office. It will be prepared when I get back and copies will go into the -- on to the NRC Web, a summary of the meeting. What we did is we solicited NEI support, knowing full well that this is a generic environmental impact statement and we will only be visiting a small number of utilities or licensees that are in decommissioning. Again, we'll cover the whole industry. So, we're looking for a focal point, so that we -- where we

can ask the questions, send it to them, they can distribute it however they want to the industry, to get the answers that we will need to compare our documents. And so, all the burden will not totally fall on one utility, to give us the information on one licensee.

MR. BLOCK: And the initial meeting will be set -- you had two meetings with NEI?

MR. SCALETTI: we had one meeting in -- I believe in March with NEI. It was just a ~~S~~subpart of an overall meeting that is periodically with NEI. And we had another meeting. I believe it was April 16th.

MR. BLOCK: What that a public meeting?

MR. SCALETTI: Yes, absolutely.

MR. BLOCK: It was?

MR. SCALETTI: Yes, it was a public meeting. And as a matter of fact, ~~all~~a representative of one of the industry ~~-- one of the -- whatever -- Travini~~publications was at this meeting.

MR. BLOCK: Okay. Now, for the -- now, I have come up with a short list of things I think should be included in your scope, just to move things along here. An issue that I recall partial site release.

MS. HICKEY: Okay.

MR. BLOCK: The newer issue, which appears to be a shift that's taking place, it wasn't contemplated in 1988,

and that's the shift to intact vessel removal with concrete put in and then a burial. I think it was Trojan. And, also, with Rowe vessel, where you're burying that in a place, that normally would have been expected to take greater than Class C waste, but because of your -- what's called a concretization of the material inside the vessel attributed to land burial and ordinary Class C waste landfill.

There are changes that have taken place in the sophistication of transportation dose and the fact that the programs and methodology that was used in '88 have been superseded. They need to be revised. There is some higher numbers that should be in there.

Then, we have the issue of changes in decommissioning costs, actually going out there and taking a look at these projects stage by stage and seeing how the kind of estimates that were made in a valiant effort for years by Mr. LaGuardia and others actually do match up or not match up to the final results.

Then, we have the issue of rubblization, as a kind of entombment without entombment -- you know, knock down the building into the foundation, not quite completely cleaned up, ice over the top, and declare it perfectly fine and dandy.

Then, we have the need to revise estimated doses

for specific decommissioning activities. So, for instance, at Yankee Rowe, reactor vessel cutting was attempted and all of a sudden, there seems to be some problems with that. The dose level might have gone through the roof and that poses certain problems. It looks like that's being turned away from. So, there should be at least an envelope that accounts for attempts to use certain techniques that turned out not to be perhaps the best way to solve a problem.

And then, finally, on my list, and I'm sure others will have others, I think there needs to be both a study conducted and an acknowledged that due to leaking pipes in a lot of these facilities, that there are plumes and tritium and other materials underneath the facilities, and these may not have migrated offsite, such as to be -- fall under the rubric. I think that Stu had mentioned about offsite decontamination per se, when they may be well contained under the site. And the question would be what do you do? At Yankee Rowe, I have brought in hydro geologists. In the license termination plan, we have provided some preliminary analysis of test results that have been done. The geologists said, gee, it looks to me like there's a pool underneath this facility and then, at that point, we never got to really adjudicating, because the licensee decided it would withdraw its license termination plan and redo everything.

But, I think that what we saw there was possibly a model and that this is worth pursuing, particularly as a move toward the attempt to green field the sites, rather than brown field them. It means that it's important to have protocols in place that will be adhered to, particularly for underwater drilling.

So, I offer these, not so much for a comment discussion at this point, but just to be part of your list. I think there are many things that legitimately should come under a proper scope for the new GEIS.

MS. HICKEY: Thank you.

MR. MASNICK: Jonathan, I think that's very productive. I mean, those are the kind of comments we want. In fact, the very first one on your list was one that was brought up previously at the previous meeting we had in Chicago.

MR. CAMERON: Okay. And thank you for those. We have three people that I'm going to go to now and then I'm going to ask if anybody has suggestions, such as Jonathan just made. And then we're going to go into the people, who want to make formal comments here. But, we did have some people, who wanted to talk. Mary?

MS. LAMPERT: Yes. Mary Lampert, Massachusetts Citizens for Safe Energy, and I have comment -- not comments, but suggestions, such as Jonathan has made, one on

decommissioning alternatives, rubblization. To my mind, it appears to me that what is happening is turning a reactor site into essentially a low-level, perhaps a high-level, radioactive waste site. Therefore, we seem reasonable to look at having the same protections, such as deep monitoring wells, requirements for liners, etc., and, also, that that be looked at in a site specific manner, because often concrete is involved. I don't think we have come up with a real answer on the affect of corrosion from salt water. And the reactor in my neighborhood, Pilgrim, for example, is right on the Massachusetts bed. But the point is for rubblization, I think it really should be looked at for what it is, a radioactive waste site, and have the requirements of liners, of monitoring, and real tests on how long concrete will last in a salt water environment.

On the issue of residual radioactivity levels, radiation standards for public exposure assume that the burying grounds are not going to be disturbed. And I think you ought to be looking at that assumption, because, in my mind, it is not a reasonable assumption; that ~~the demand --~~ ~~their~~Man nature is not going to disturb the dirt, which we're relying or shielding. This is particularly -- again, I think of my own neighborhood, you look at Pilgrim, which is on the ocean. We know about rising sea levels. We know about the increasing numbers and severity of coastal storms

and we know about eroding coastlines. All of those things tell me that nature might do something with disturbing the burial grounds and, therefore, we have to get rid of that assumption, when looking at our radiation standards.

I, also, think it's imperative, talking about radiation standards, that we look at what is background, and it has to be site specific, to come up with the ludicrously that we're all 360, or counting every -- five per person is ridiculous. For example, again, take some place like Pilgrim. That is upon sand. At best, we're at 80 before the power plant came into place or the Chinese smart bombs all ended into the neighborhood, one or the other. But, we don't have rocks. We don't have radon. And, therefore, it has to be looked at in a site specific way, not the 360 I hear running around.

Then the other point I'd bring out, under -- that I did bring up, under financial ~~insurance~~assurance, living in this area, we've all experienced the Big D. We know what happens, that money just is not -- what's anticipated, it's never enough and it's not fair. I know very sure the ~~p~~Price ~~ends~~Anderson and that -- the license expires. But what I want to know is what -- who takes over after the license expires? I want to follow a money trail, that's the point.

MR. CAMERON: Let me make sure everybody -- this sounds like -- do you understand the question that Mary is

asking, Steve?

MR. LEWIS: About Price Anderson?

MR. CAMERON: Yes.

MR. LEWIS: I mean, the last part?

MR. CAMERON: Yeah.

MR. LEWIS: Okay, I do.

MR. CAMERON: Can you offer us anything on that? And then we're going to go on.

MR. LEWIS: Price Anderson is key to the presence at the facility on fuel and, you know, when fuel is no longer at the facility, Price Anderson will no longer require public liability insurance. I think it's the existence of the fuel. I suppose I can say, yeah, the existence of radiation is -- but, I'm not sure if you mean the same thing by that than I do. So, I'll use my term, because I'm more confident with it, in terms of what Section 170 of the Atomic Energy Act says.

I wanted to get to a slightly broader point, because I've been concerned that there has been so much exasperation among many of the questioners, in response to many of the things we've said. And I could always maintain a comfortable -- as a government regulator, when I feel people are so exasperated by the answers that are given,.

The first thing I'd like to say is that in 1996, the Commission completed a rulemaking, which begun in 1994.

And in that rulemaking, the Commission made the judgment that at the early -- at the stage when decommissioning activities were going on, it was their view, as people who had seen inspection activities going on for quite a few years. That, in fact, types of activities that were being undertaken were really very similar to things that go on not so -- I wouldn't necessarily say they're operational things, but they are things -- sort of maintenance and change out and things that happen at periodic shutdowns of the facility -- you know, maybe somebody people in the audience understand this and maybe some people -- you know, it's useful for me to go through this.

I mean, during the operation of the facility, there are a lot of activities that go on, that are, in fact, in the NRC's view, very similar to the kinds of things that go on during decommissioning. The Commission felt that the most important stage of events that we would be looking at was going to be the point where we were no longer going to be regulating that facility, and so it may -- it put its emphasis at that stage.

Now, I sense a lot of consternation about that determination by the Commission. But, I will tell you -- try to explain to you what the thinking is. The thinking is that -- I'm putting it forth -- the Commission has given long and hard consideration for this matter. It's reflected

not only in the 1996 decommissioning regulations, but, also, in the 1997 license termination rule. That was the -- I'm going to move back to '97, license termination rule -- that was the Commission's statement on that criteria would apply to terminating a license, and that -- this is a big time important thing to the NRC, because, you know, we're a regulatory agency and it's at that point that the Commission felt that -- you know, we really needed to feel satisfied that things were in place, such that we could step back and can no longer regulate the facility.

And, yes, there was a decision made on the basis of the regulatory perspective of the agency; that activities up to that point were, in fact, very much like what has been going on at the facility. And because the facility had been licensed, first for construction, and then for operation, and in those documents, we had stated, of course, this is the facility. It's going to operate for a certain life time. At the end of that, it's going to be decommissioned. And we stated that those -- I see a hand being raised, but I really can't respond to it at the moment. Just let me finish what I'm saying. I'm sure someone will bring around the mic to you. And in those statements, we set forth the fact that it's going to be decommissioned. I mean, obviously, it's going to be decommissioned. We stated what we knew at those times. Some of these statements were -- go

back to the 1970s. If they were written today, we could state much more. But, we stated what we had available to us about decommissioning, at that time.

So, I mean, I think the NRC perspective needs to be understood. You don't have to agree with it. Some of you may not agree with it. But, I think it's good. Of course we understood when a plant was operating with a license, that, at some point in time, it was no longer going to operate and it was going to have to be decommissioned.

Now, it's at this point that I start to get a disconnect, because the fact of the matter is that what we are now going about in this GEIS is a very concerted effort to try to go back and look again at the subject of decommissioning; make sure that we are -- it's not just a question of responding to what different companies have come up with as proposals, because even the things they come up with as proposals tend to evolve to some extent. They may evolve, because may -- it put certain legislation into effect, and that has an impact. Or they may evolve, because -- because of actions of the licensee, themselves. So -- we know that there are various ways as made in time.

MR. CAMERON: Okay. Steve, thank you for that. And I'm going to ask people, who want to talk with Steve about that, to do it after the meeting, so that we can get on to types of impacts here, because we're talking about

something that's very important. What's the rational for all of this? So, we really do need to get to the formal statement.

I'm going to go to Darrell and then Tim, and I'm going to ask if anybody has any specific recommendations on what the NRC should consider in this environmental impact statement. And we're going to go to the formal statements and if we have any statements that linger after that, we can do it. But, we really need to go in that sequence. Darrell?

MR. FARBER: My name is Darrell Farber. I'm from Harvard University. When a facility goes from an operating facility to a non-operating facility, does that require a license amendment change?

MR. MASNICK: No.

MR. FARBER: Okay. The second is what factors have changed since the first environmental GEIS that would now suggest that ENTOMB is a possible option?

MR. CAMERON: Okay. That's a good question. Mike?

MR. MASNICK: Well, first of all, I think what has happened is the Commission has directed the staff to look into it. There has been no decision on the part of -- on the part of the Commission, as to whether or not ENTOMB is a viable or non-viable option. The reason could be that we've

had now a lot of experience associated with dismantling these plants and that I think what we originally had evaluated for the ENTOMB option, or at least most of us felt with entombment was leaving everything at the plant and somehow immobilizing it, basically, forever. Some of the things that have been considered is removing some of the components. So, there may be some sort of a hybrid situation, where you do some DECON work and then you go into entombment.

So, I don't think there's anything that has triggered this, other than the Commission's interest in, you know, it's been 13 years plus to look at it; let's leave, reevaluate it, and let's see if it is a viable option.

MR. CAMERON: Okay. We're going to go to the State of Maine here again. This is -- could you just identify yourself?

MR. DOSTIE: Yes. My name is Pat Dostie. I'm a safety inspector at the Maine Yankee facility. I've got one comment and three questions. The first comment I have is relative to what you all have said, in the Zion SAFSTOR commission, in the sense that it can see rad exposures about half of what's -- projecting half of the exposure to what was originally projected from GEIS. I know from past experience, because I used to work at Maine Yankee as one of the radiological engineers, that whenever it comes to an

ALARA projection, no matter what you use, whether it's a general area or even the highest dose, by the time it's all done and you actually take a look at people's exposure, it's never anywhere as near what you have. So, you always should take a look at it. A real good factor reduces that, to really challenge yourself; otherwise, it's a worthless use of resources all the way around, for the industry, as well as the NRC.

I did have a question that came to -- I think, also, you said something about we would rather look at the NEI for support. I can see you going to the NEI for support, when it comes to radiological issues. However, non-rad issues, are you just limiting that to NEI or are you looking at EPA or some other people that can find input? If there's a reason to enroll, the NRC takes care of the rad. But when it comes to non-rad, then you get into states, as well as EPA.

MR. CAMERON: Could Dino or someone from the NRC tell us all of the different organizations that we're trying to work with to get information to do this?

MR. SCALETTI: We have been coordinating very closely with EPA on this generic environmental impact supplement that we're doing. Then, we have, you know, NEI involved as a -- to compile our information that we're going to be requesting of the industry for the decommissioning

process. And we certainly will be utilizing the states, if they're willing. We put out the document where we have these meetings and we're looking for your input. We will certainly take into consideration -- we will issue a draft environmental impact statement, in which we expect very critical review from the industry and the EPA, the states involved in this process, or the interested people that want to come.

MR. CAMERON: And we will be hearing from EPA in a minute in our formal statements. I guess -- let me go to you.

MR. DOSTIE: Okay. Mike mentioned that you felt comfortable when it came to the LTP, because you said, in essence, it was closed for the conclusion aspect of decommissioning. In the Maine Yankee situation, that kind of plan is coming up about four years ahead of time and some of the things that are not in the plan and is going to be an ~~involving~~evolving process, to really learn some of those issue, until, let's say, maybe a couple of years from now. I think that's one of the workshops the NRC was looking for some input as to what things they could allow and not allow in an LTP, how many impressions they've had. What they were looking for as guidance? What kind of license can change an LTP that wouldn't require NRC approval?

I'm not exactly sure or clear on some of these

things, but the thing here is when you're four years ahead of time, like Maine Yankee here, and one of the things I've been expressing all along to Maine Yankee, as well as Stone and Webster and whoever it is in the future, that it seems like the right hand sometimes does not know what the left hand is doing. Going ahead with decommissioning, in this manner, on activities, not realizing what impact it's going to have, when it comes to plant site survey, we do an awful of earth moving. If you're relegated to ~~Lascom~~MARSSIM, you're looking at six inches. And then you can say even if there is such surface, you've got to go look at it. And if they have excavated and they move it some place else, what do you have and how do you want it? It gets into all of our questions.

So, like I said, what's close -- where I see, you know, three years, everything has been done. Everything has been characterized. Everything has been remediated. You submit a plan; you know exactly how it's going to go forward. But, I think in this particular case, at least at Maine Yankee, I'm sure the industry is going to learn from that. They will be submitting LTPs a way ahead of time, and it's going to make it difficult to know some of those answers and to make sure that everything is in the proper perspective and that impacts -- later impacts as to the final conclusion. But, other than that, you've met the

compliance, the regulatory criteria. It's going to be questionable, because of the work that you've done and we're going to take it into consideration up front.

So, you may have a general procedure like Stone Webster, which is I will move this earth. But, in reality, that's all it says. We have a program that does that. But, in the end, how you really characterize then before is really -- is the real key to making sure that you go ahead and do the rest of the moving, because now you've done enough work that you're really satisfied with what you have.

MR. MASNICK: I was just going to say, clearly, we have a better understanding of where we're going to end up now than we did, let's say, two years ago. So, you know, I think we do have a little better understanding. But, I understand your point.

MR. DOSTIE: And the last thing here has to do with Eva. Eva, you said something that caught my eye in one of your slides. It's on page nine in here. On the decommissioning process, you made a statement of the license termination plan, that -- and here's the word, I guess I want to make sure that you really meant that. You said a complete characterization of the site. Now, who knows, what they means -- is that what the NRC really expects in the LTP?

MR. CAMERON: Let's go to Bob Nelson for -- or

Larry, particularly, for an answer about complete characterization.

MR. PITTIGLIO: -- [off mic] -- which is 50.~~8289~~82(a)(9). It says "the site will be adequately characterized for use in determining levels of classification for survey activities." If you go back and look at the standard review plan that we just put out -- I believe you may have gotten a copy of it at the ~~NY~~MY meeting Monday night. We do provide a detailed discussion of what characterization encompasses. The real purpose of it is to take the information available and to use it for the classification to survey units. It's the basis for conducting surveys in determining the remaining levels of examination at the site.

MR. CAMERON: Okay. Thank you. We're going to go Tim from a hand up that was outstanding from before. And then I'm going to have to ask for us to just limit our comments to areas that the NRC should explore on this, so that we can get to the formal comments, because we have a number of you people. Tim?

MR. JUDSON: I guess my last couple of questions has -- well, one is a point of clarification, but the other has to do with, you know, sort of the big picture of why we're looking at a GEIS, at this point, as opposed to where -- it's the issue of why we're looking at a GEIS that

precludes site specific environmental impact statements, or what the need for -- the need for site specific impact statements in the case of decommissioning or why we're looking at a GEIS instead of basically a glorified set of guidelines that utilities need to consider in terms of decommissioning. Because, it seems like what we're really -- what's really happening right now is that we've been -- that the NRC and the industry have a certain amount of experience with decommissioning, at this point, and the NRC seems comfortable with summarizing that, in terms of a set of guidelines that they totally need to consider when they begin the decommissioning process.

Now, the other part of this has to deal with the question of NEPA and the issue of decommissioning as a major federal action. And there's two parts of this. One is that if -- you know, if, as I think I believe Mr. Masnick has said before, that decommissioning is not considered a major federal action, then why is a GEIS being issued in this -- in terms of decommissioning? The other part has to deal what the gentleman in the middle said a little while ago. In terms of -- I think he described, you know, decommissioning as a big time federal action and I'm wondering how that is distinguished from the major federal action. And, you know, this is -- we seem to be sort of, you know, schizophrenic, in terms of that characterization.

Now -- and this does -- and I think the question about whether decommissioning is considered a major federal action and why we're looking at a GEIS -- from our experience, you know, with, for instance, the Rowe decommissioning, after which the NRC changed its rule essentially to legalize what happened at Yankee Rowe, it seems like -- the federal action that is taking place is actually the deregulation of decommissioning and that that's what this GEIS is about.

MR. CAMERON: Okay. I think it's important for the NRC to -- there is a bunch of questions there, but you really need to put the GEIS in context, in terms of what that does. Because, I think that there are still some misunderstanding about what the GEIS does. Mike, are you ready to take this on?

MR. MASNICK: Yeah. I can answer a couple -- the first -- I think the first two. All right. Why are we doing a GEIS, as opposed to site specific EIS? And I think the reason is, as Eva said, many of the impacts that we see, the environmental impacts that occur during decommissioning are very similar. The facilities are very similar, okay. And as a result, it seems reasonable to look at them in a generic sense. And GEISs are done quite frequently. Other agencies do them. When you have similar impacts, similar facilities, it is a reasonable way of going. Now, what

you'll end up doing, hopefully during this process, is identifying those particular impacts that can't be dealt with tonight and that's one of the things that we emphasize.

MR. JUDSON: I guess I should clarify why it is that I asked the question that way, which isn't -- I think we all agree that there needs to be a generic overview of decommissioning, of what it entails. What I'm wondering in terms of why the NRC is, you know, proposing a GEIS that, in some way, precludes the need for a site specific EIS, in every decommissioning case, is that it seems like while, you know, there's a certain body of experience that the industry and NRC are accumulating, also, in every decommissioning case that I'm aware of, there's been lots of surprises and lots of abnormalities that are site specific. And so, why -- GEIS are then being constructed to reform a site specific environmental impact statement in decommissioning, rather than -- that somehow creates an umbrella that shields him from having to do that?

MR. CAMERON: Let me add something on there, that, I don't know, may help in this respect. When does the public get to examine the decision about whether the utility -- the environmental impacts in a particular decommissioning case are really bounded by the GEIS -- in other words, to take a count of whether there are surprises out there. What is the decision making process? What is the agency action

that allows -- that exposes this to public scrutiny?

MR. MASNICK: Well, there isn't any at the initial stage, because there's no --

MR. CAMERON: No, I'm not talking -- I don't want to say initial stages.

MR. MASNICK: Well, okay, but --

MR. CAMERON: But whatever.

MR. MASNICK: -- ultimately, the environmental assessment is done at the license termination plan stage.

MR. CAMERON: All right. Well, I guess that's at least where you find out whether it's bounded, okay. But, I think that that's a theme that's been running through this and we really need -- we really need to get to are there specific types of impacts that people have to suggest, rather than continuing to talk about the rule? Okay.

MR. RICHARDS: This is Stu Richards. I just want to make a comment. It's probably obvious, but, you know, it's just a difference in philosophy. You're saying that there should be public involvement on the front end. Mr. Lewis up there, and the other guy, they all said that the Commission made a decision that the active decommissioning is not that unique and that as long as we define envelope and they live within that envelope, then that's a reasonable way to go, and that's what we're doing. So, when you've repeatedly called into question a Commission policy, you

know, we've heard that. Thank you, very much. But, we're not here to discuss that tonight. What we're here to do, I hope, is to get input on what should be considered, as far as defining that environmental impact envelopes. So, we urge you, that you don't like the process that the Commission has defined, we'll ask the staff to carry it out. But, I don't know how many times we can say that before we convince you with we're not here tonight to change that.

MR. CAMERON: Well, I think we -- I think we did discuss it, too, and I think the points have come through clearly. And what we need to really to do now is like really concisely move through types of impacts that the NRC should look at. And we're going to go -- we're going to go through that and then we're going to go to the formal statement. And I would really like to get the EPA up there first, to tell us -- to hear what they have to say. So, let's try to do this as concisely as possible. Mary?

MS. LAMPERT: Mary Lampert. Financial assurance, that means to me that there's enough money to do the job cleaning up; therefore, I recommend you looking into changing your definition of decommissioning, to include what's really important, taking care of the spent fuel, gross operation costs -- spent fuel, in terms of nuclear waste, number one; and to take down non-radioactive structures; that those are all real jobs, money that has to

be spent. So, let's call them decommissioning costs and then assess whether there's enough money to do the job.

My next question is, and it's particularly important as power plants are being sold, when we hear that it is financial assurance, I would like to know, as a member of the public, have you defined in this what your exam questions are specifically to determine that there is financial assurance and how you rate it. What does "passing" mean? What does "~~family~~Failing" mean? And if you fail or you're questionably questioning that they have financial assurance, what is done to ensure that they will? So, as a member of the public, I'd like to know what your score car~~e~~d is, so we can feel some assurance in your determination of financial assurance, a specific lessons learned, and this is very specific, in the sale of plants?

Calvert, as you know, we sold from ~~Beeko~~PECo to Entergy. At the time, I wished that for decommissioning purposes, that the NRC had required as a part of agreeing to the sale, that there be a detailed map and description of where waste was buried on site, because waste had been allowed to be buried on site by the NRC for a number of years. However, the people, who were -- the initial people are history, they're gone. And you can lose that important part of history of exactly what everybody knew was where; very important review, in assessing the cleanup. And I

would be -- do you see what I'm saying, in assessing how much this is going to cost. Don't let site specific history get lost in transfer of ownership of plants, and the way of not having that happen is to make it a requirement of the transfer.

MR. CAMERON: Let me put something on the record here, in terms of -- you've heard what Mary has suggested. Some of these comments may not -- when you resolve comments and issue a scoping report, they may not fit within the scope, although they may be very legitimate issues to address. Will we, for those issues, turn them over to the people, who have responsibility within the NRC to address those issues, I guess is the question I'm asking.

MR. LEWIS: I think you -- I'm not in the programmatic end of things, the legal end of things, so -- but, the answer is that we will definitely make sure that the people, who are from the staff, who do not happen to be here today, because they're not directly involved -- they're separate, but are involved in the kinds of things that you're raising, such as financial assurance, to know about it.

A couple of things I just want to say real quickly, which is that there is a specific requirement in our regulations that decommissioning -- that decommissioning records -- I'm not using the right word -- spills, all of

these records are required to be maintained and to be --

MR. CAMERON: Okay. Let's --

MR. LEWIS: Well, that thought -- I mean, I --

MR. CAMERON: Let's go to suggestions, as to impacts to look at please talk after this. Ray, do you have specific impacts? And then we're going to go to Rosemary. Ray Shavdis, do you want --

MR. SHAVDIS: Sorry. We believe that fuel storage needs to be considered in the generic environmental impact statement. At Maine Yankee, they are shifting fuel specifically to the decommissioning process. And you already know what our objections are to Part 50, Part 72 shift there; but, basically, if there is a shift for the purpose post-license activity, it should require a new license. There should be included additional comparisons of various options and activities and you should consider in that the dose to the workers and the public comparative -- comparative environmental impact for different options within the envelope, overall dose envelope.

Pardon me?

[Off mic.]

MR. SHAVDIS: Yeah. Maine Yankee is engaged in questioning whether to bag and tag or rip and ship. They had different options for how they were going to handle materials they're removing from the plant and whether they

would simply dump them into gondola cars, cover the car, ship it, or rather they would repackage it or try decontaminate on site before shipping it.

And while we're speaking of that, it's very important for -- in considering the generic environmental impact, that the dose to the workers and the public at those facilities, where these materials are being prepped for third release, needs to be included for the plant, in which that material came. So, if we're shipping to what used to be FW Hague, down at Memphis, that that dose be fed back to the plant and inform this whole process. When you're thinking about this, you really need to inform yourselves, as to where this stuff is processed and where it winds up.

Additionally, there won't be some kind of -- and this is another example of what I'm talking, the dose comparison. A kind of comparison -- a calendar comparison, the plant sets the schedule for decommissioning and they're in a hurry to do it, so they chemically strip their piping. Now, that produces low-level waste, very hot low-level waste, you know, those resin filters, and that stuff has to be handled, has to be shipped, has to be disposed of. And a lot of that ~~does~~dose comes from relatively short life radio nuclides, Cobalt 60, five year half life or something. So, if they've waited two years, they were forced to wait two years, you cannot count that dose considerably and the

subsequent release to the environment. So, it needs to be that comparison.

The -- we're very concerned that this change in the GEIS not be used to enable a release of radioactive materials in decommissioning that are not necessary to be released. When you're running a plant, you have -- everything you have in it, so you're going to have releases, and that's understood as part of running a plant. However, in decommission, that's not necessary, and I'm speaking here specifically of pre-releasing, whether on site and burial or off-site radioactive materials, should cease and then the plant declares itself to be defueled, or whatever the terminology is. hose radioactive materials should only be transferred in the course of present regulations from one licensee to another. And if you are going to do anything else, then there really needs to be an impact statement and new regulations stemming from -- in your GEIS.

The example at Maine Yankee is leaving outflow piping. There's a large pipe that runs out into the river and a large concrete diffuser. This is offsite. It is contaminated. If it were onsite, they wouldn't be allowed to leave it. If it's offsite, they're allowed to leave it. So, there's some questions there and I think those are the kinds of things that we need to look at.

The impact on the environment within your GEIS,

the ecology, for its own sake, everything is always fed back to dose to human beings. But, we live in some kind of symbiotic relationship with the environment at large. And, you know, I know that doesn't fit in with regulation, but I'm giving you our point of view here. The public is a partner in decommissioning. It needs to be a transparent process, where all communications are available, including conference calls and any communications from licensee to the NRC. These are not readily available on the Adam thing. As you know, it's a problematic situation.

But, in terms of -- and I'm going to get to this issue, like it or not, psychological impact is a public health issue. The beginning of the 21st century here, we ought to recognize that psychological impacts are health impacts and psychological impacts to the public are public health issues. So, that means that there should be no mystery, no secrets, nothing for the public to develop anxieties over in the decommissioning of a plant. If there is, it's an environmental impact. It needs to be included.

Additionally, in that same ~~vane~~vein, community advisory panels, which are recommended in the decommissioning rule, I believe, they need to be funded. They need to have control of the budget. They need to be independent. They should be convened by a state or a county, and by a nearby university -- anything but the

utility. And this is -- I mean, this is obvious -- you know, obvious why that should be that way.

The other thing is your experience that has been formed by all these decommissionings, we're wondering if it has been formed by work, decommissioning, partial decommissioning, or cleanup at DOE facilities and DOD facilities. And if not, it certainly should be.

And I need to mention, finally, there is -- there is the issue of absolute confirmation, that sites can be prereleased or reused, if you're going to declare them being refuel conditions. And I can cite as least two instances this year: one, on the Chicago waterfront, where a lantern mantle factory had been cleaned up and reused for public use. They want to build a shopping center there. Gosh, Ned, it turns out it is contaminated now that they've started to remove soil, and the entire project is held up.

In California, there's a site for a school -- public school to be built on a former contaminated site. It turns out when they start to dig, it is contaminated. Parents -- not only has the project been held up, but parents don't want to send their kids there. And so, I think there needs to be some confirmatory process at the end of decommissioning, but there, also, has to be -- in that process into your GEIS. With only two plants totally decommissioned, I don't think you have enough history to

come back to that. That's the end of my list.

MR. MASNICK: I have one question, Ray. I was -- I had trouble following one of the issues and that was the symbiotic relationship. I mean, are you saying that we should look at the radiological or -- radiological and non-radiological impacts of --

MR. SHAVDIS: If you're going to call it an environmental impact statement, it really needs to include the environment for its own sake.

MR. MASNICK: Not just human?

MR. SHAVDIS: That is correct.

MR. MASNICK: I understand, okay.

MR. CAMERON: Did you get the connection between process issues and anxiety, that impact?

MR. MASNICK: You know, the last time you asked me a question, I got into big trouble, so I'm not going to answer that.

MR. CAMERON: I'm not going to ask that. You know, but I think that is pretty clear. We really do need to get to the statements. Rosemary?

MS. BASSILAKIS: I'd like to have a meeting on what we don't want you to include in the GEIS. So, maybe at some point, we can have that kind of a meeting. But, again, I'd like to just reiterate what Ray said, as far as offsite recycling places and the doses that are incurred there,

absolutely have to be considered as part of decommissioning. And, additionally, if the doses are being incurred offsite, there should be less doses incurred onsite. So, of course, you would want to decrease the person rem exposure allowed at the nuclear facilities.

As far as the offsite contamination, the GEIS should include something in that nature, as far as if there's something that triggers either cleanup or triggers perhaps environmental monitoring into the future. If you look at the sediment, we found out, hey, these routine releases really built up a lot more than I thought they would. That should be looked at in the GEIS.

Keeping an eye on the whole picture, and I'm not sure how you do that. But as part of the community decommissioning advisory committee, one of the issues that keeps coming up is no one is looking at the whole picture. So, partial release of the site for unrestricted use, which we oppose, but aside from that, who is looking at the whole picture, with regard to why does the utility want to do that? Oh, they want to build a gas fire plant. Oh, they're going to, also, build dry storage, you know. Oh, they're going to keep decommissioning the plant. Who is looking at the whole picture with regard to all these different activities that are supposedly going to go on simultaneously and not jeopardize safe storage of the fuel? It doesn't

look like anybody is looking at that big picture and it's a real big missing piece and people are very, very concerned about it.

And fuel storage, as Ray said, as Casey said, fuel storage, we don't seem to have an avenue where we can talk about it. NRC says, hey, that's DOE's responsibility and we can't get anything out of the DOE. But, you know, we're the community that live there. We never lose sight of the whole picture. And we need an avenue where we can talk about it; we can be reassured that somebody is looking at the whole picture.

MR. CAMERON: Just answer Rosemary.

MR. MASNICK: I just wanted to respond to just one comment you made and that is on the partial site release. One of the things that we have been looking at is partial site release and one of the things that we're very much concerned about is the use of that property, if it is released, both from the perspective of its impact on the remaining activities at the site. So, that is -- that is a real big concern for us. And, also, what the use of that site is, as far as what residual radioactivity might be on it. So, we are looking at that.

MR. CAMERON: Okay. Deb, I'm going to ask you to maybe incorporate into your statement this question.

[Off mic.]

MR. CAMERON: Okay, well, then let me -- you've got an example of an impact? Okay, good. That's great.

MS. KATZ: I don't want to make any statement after this. I think the health problems in communities have to be addressed as part of any GEIS, since their epidemics of disease in these communities many times, and the effects of any further contamination of the community. Since Yankee Rowe continues to dump its radioactive waste during decontamination into the Deerfield River, which affected our community, we have a 10-fold increase in Down Syndrome, statistical significance in breast cancer, non-Hodgkin's lymphoma.

There has to be, we believe, updated environmental reports that are done. The ones that were done at Rowe had been old and inadequate and they hadn't been updated. We believe they should be updated before even for the GEIS to take place in adequate form. We are really concerned about the plumes of contamination that are onsite underneath; in Rowe's case, the radiated fuel pool, which there was a release of radioactivity that went all the way down into the Deerfield River, basically. And you may not care about what happens offsite to us, but you have to understand that as far as we're concerned, this is a betrayal of your regulatory responsibility that any radioactive waste is left in our community. Responsible or not, you have to

understand that we do not and will never take the same position you do on radioactive contamination.

The public participation you have is hopelessly inadequate. And I think you can see from tonight that, basically, people are completely frustrated with you and that we think you're clueless about what our concerns are and what's going on, because it's the health and safety of our children, not a game about how much workers are exposed. At Rowe, you know, they released a lot of hot particles. Workers may have tracked those home, into our community, during the process of decontamination and the cutting up of that vessel. We will never be able to find out what happened to all of those hot particles and what left the site. And the issue of hot particles and how it may affect our community, as well as onsite, is very serious to us.

We do not agree with your IPO. The average member of the critical -- the average member of the critical population, being the measuring stake of how much radioactivity we will find in the future, this may work for workers during reactor operations; but when you're talking about releasing to a site in which children will play, old people will live, this is unconscionable and unacceptable. The most vulnerable people, the critical population, children, pregnant women, old people, should be the -- basically, the critical population at this point and we

don't accept the idea of an adult male, weighing somewhere between 150 pounds to 200 pounds, who is outside 30 percent of the time, being the measurement stake for what say.

We plead that the conflict between the NRC and EPA has to be resolved, in terms of what gets left behind. We want the NRC to accept the EPA's 15 millirem standard. As far as the public is concerned, that's to -- there should be nothing left behind, as far as we're concerned. That's what we were promised at the beginning of this and all of this is a game, to allow them to leave as much waste as they can. We are concerned about using the workers at other sites and even onsite, in terms of certain removal processes, not calculating their doses. The nuclear doses and removal of the steam generators at Yankee Rowe were not calculated as part of the doses that took place and yet they were part of decommissioning. We don't believe that that's acceptable in terms of it and that, therefore, Rowe was able to -- like there was less exposure than there actually was.

We don't like the ~~Morrison~~MARISSIM program, in terms of -- it may be fine, in terms of six inches, but the GAO report has come out. That's clear that until 1980, reactors routinely and gravely did not keep documents on waste, and we, six feet down -- or four feet down, six feet from us. Therefore, there is a lot of waste potentially on the reactor sites. In every site that the GAO investigated,

there was waste down, potential contamination down into the groundwater. You may not be concerned about our groundwater, but we are. And so the issue of the methodology that's going to be created to determine that is essential to us and should be determined before any of these decommissionings go any further.

MR. CAMERON: Okay. Thanks, Deb. There was a -- you raised a point that some other people referred to as not only what types of impacts, but the data that you use to determine impacts has to be credible data; but, just to summarize on that part, which I think you got.

We're going to go -- I'm sorry, Mary, right now, we're going to Carl Dierker from EPA. We're going to start our statements. Carl, you can -- you can come up here to the mic or you can use this one, whatever you feel most comfortable with. All right, good; all right.

MR. DIERKER: Good evening. Now, it's 10 past 10:00. I'll try to wrap these up. I'll try to be brief. My name is Carl Dierker, regional counsel at EPA in the Boston office. And first of all, I want to thank the NRC for coming to the New England region. I think our region is a region that's in the forefront of the decommissioning process of commercial nuclear power plants across the country. We have four plants that are presently in various stages of dismantling. The group -- many people tonight

were talking about them: Maine Yankee, Yankee Rowe, Connecticut Yankee, and Millstone Unit I. A lot of those issues that have been raised here tonight, that folks have talked about, are related to GEIS. I do want to focus primarily on the GEIS and my comments and I want to speak a little bit about EPA's role in the GEIS process.

Congress has given the Environmental Protection Agency an independent role in reviewing other agency's compliance with the National Environmental Policy Act and we, in EPA New England, have taken this responsibility very seriously. In this capacity, EPA has a number of roles. Number one, we provide advice to federal agencies that develop their NEPA documents. Number two, we advocate the processes used in creating these documents that afford early and substantive opportunities for public involvement. Number three, we evaluate the adequacy of the agency's environmental review. And number four, we recommend whether projects undergoing environmental review should be modified or mitigated, based on projected environmental impact. In cases where the EPA administrator finds that the proposed action is unsatisfactory from the standpoint of health or welfare or environmental quality, the EPA administrator has the responsibility to refer the matter to the President's Council of Environmental Quality for resolution.

That's basically our role in this process. That

being said, EPA and a variety of stakeholders agree with the NRC that the generic environmental impact statement for decommissioning was published in 1988 needs to be updated and revised. We applaud NRC's initiative in starting this process to supplement the GEIS. NRC's scoping process provides an opportunity for all interested parties to come together and provide advice and comments and help define the parameters of the environmental analysis. Because EPA plans to provide advice to the NRC in the supplemental environmental impact statement process, our comments here will be brief and intend to provide a sense of EPA's recommendations for the SEIS process. We will provide a written comment, in addition, to supplement these.

We have seven recommendations for our -- for the scope of the GEIS. And we recommend the SEIS be at least broad enough to address these following issues.

Number one, the supplement should be updated to incorporate and evaluate new decommissioning technologies developed over the past decade. For technologies that are still evolving and for which complete information is unavailable, and for this we're primarily focusing on the rubblization proposal, or where applications of certain decommissioning techniques may have varying impacts depending on the uniqueness of the character site, the SEIS should recognize that these impacts will need to be further

examined in site-specific environmental analysis or further revisions to the SEIS.

Number two, the SEIS should provide more detail about specific decommissioning activities and technologies, in order to accurately assess and fully disclose the associated environmental impacts.

Number three, the SEIS should not assume that merely radiation dose from a particular facility will be reduced, decommissioning has always or even generally environmentally benign. The SEIS should take into the account the relevant environmental characteristics at the site and the impacts from the use of the decommissioning techniques.

Number four, because the GEIS is by definition generic, it should provide substantive guidance as to the kind and extent of further environmental information and analysis necessary for the NRC to develop site specific NEPA documents and for licensees to evaluate environmental impacts, as required submissions in their PSDAR and the license termination plan. It is important for the NRC to commit to adequately address alternatives, environmental impacts, and mitigation in either the SEIS or in the site-specific analysis.

The SEIS should address whether and how to incorporate findings of the EIS for the plant construction

and operation that typically do not address decommissioning, subsequent environmental analyses that have accrued during the plant operations, and reports on referenced facilities. Additionally, this guidance should address the need to assess the degree to which the environmental parameters of the site may have changed during the operation of the facility.

Number five, the SEIS should address relationships between GEIS and other NRC regulations, such as the site release criteria.

Number six, the SEIS should disclose and distinguish between the impacts to the natural surroundings, such as terrain, ecology, wildlife, climate, hydrology, and the public and human health impacts.

And finally, number seven, this is one that we, at EPA, of course, always consistently need to be working on as well, we encourage the NRC to make the SEIS user friendly, using plain English and straightforward explanations that will provide the public understanding decommissioning procedures, requirements, and environmental impacts. I certainly must say that we, at EPA, need to help do that as well, in our regulations.

We, at the EPA, look forward to working with the NRC, as it develops what promises to be a particularly needed, current, dynamic, and useful document, to which all

stakeholders will have the opportunity to contribute. We believe that early and thorough public outreach participation is essential for reaching the best solution in environmentally complex issues, solutions that will have the credibility with and maintain the support from the surrounding communities. This SEIS is one small, but important part of this critical public outreach participation process that needs to be going on in each one of these decommissioning sites.

Thank you, again, for coming to New England and providing a forum to listen to the comments of our citizens, who will be extensively involved in the decommissioning process for the months and years ahead. I have a written summary --

MR. CAMERON: Good. I think we can attach that to the transcript, too, okay, and thank you, very much, for those comments, Carl. We're going to go to the State of Maine now. Pat?

MR. DOSTIE: Thank you, and for the record my name is Pat Dostie from the State of Maine. I'm the State Nuclear Safety Inspector and I thank you for the opportunity to address the U.S. Nuclear Regulatory Commission tonight on the draft -- supplement to the generic environmental impact statement.

We understand the document under developed is

intended to encompass all power reactor decommissioning projects in the United States, including the Maine Yankee decommissioning. That makes the current process a pivotal concern for the citizens of the State of Maine.

We wish to point out that NRC"s commitment to a thorough and careful technical discussion and a review of the issues already identified, as well as those raised as a result of this scoping process, will not only enhance the public's confidence in the NRC's oversight of the decommissioning, but also its regulatory processes in general. A side comment: from some of the comments tonight, I guess that's probably questionable.

At this time, we have three specific comments to submit for NRC's consideration. First, as the NRC has explained, the proposed documents update would replace an antiquated document that does not reflect present decommissioning practice. It is in the interest of the State of Maine and Maine Yankee that the existing GEIS be brought up to date with respect to new techniques, such as rubblization. As suggested in the NRC staff white paper on the rubblization process, the specific proposal embodied in Maine Yankee's license termination plan is not yet analyzed as to whether it is acceptable under the provisions of the National Environmental Policy Act.

As Dr. Phillip Haines, Deputy Director of the

Maine Bureau of Health, commen~~c~~ted at Maine Yankee's May 15th public meeting on its LTP, and I quote, "A matter which the NRC should address promptly is the lack of an environmental impact statement covering certain processes described in the current Maine Yankee LTP. Specifically, burial of rubblized radioactive concrete is a new procedure, not covered in the existing GEIS, nor in any other EIS of record. The NRC in its consideration of a revised GEIS is addressing this. However, the revised GEIS is not likely to be ready in time to review the Main Yankee LTP. Absent an applicable GEIS, we believe that a full environmental assessment should be done to determine if a site specific EIS is necessary to properly consider the potential risks in the proposed plan."

We do applaud and second the staff's position in their white paper, which recognizes that the NRC must fulfill its NEPA responsibilities before approving the use of rubblization.

Secondly, since the proposed document will serve -- and I think I heard something different tonight, but we're under the impression that we will be facing existing regulatory guidance, as far as NUREG 1496. Maybe not, based on the slide; but, we do recommend that radiological issues be revisited with particular care. A specific analysis should be made for matters not otherwise covered in the

existing regulatory guidance such as the environmental impact of residual subsurface radioactivity. Note that the current series of regulatory guidance, built around the Multi-Agency Radiation Survey and Site Investigation Manual, MARSSIM, NUREG 1575, do not address the environmental impact of residual radioactive material deeper than six inches below the surface. Nor does it address such challenges as activated concrete, activated rebar, internal contamination in cracks, sub-slab contamination, and maybe contamination in so-called in excess of the surfaces, some of which of these were, also, noted in the Advisory Committee on Nuclear Waste's January 24th letter report to the Commission.

Finally, and no less important, we are, also, concerned about other environmental impacts. This was, also, aptly expressed by Mr. Brooke Barnes, Deputy Commissioner of the Maine Department of Environmental Protection, at Maine Yankee's May 15th LTP meeting. And I quote, "Decommissioning is not just about radiation. In fact, it may well be that at this site, the potentially significant environmental impacts are traditional concerns, such as pH and other conventional contaminants -- PCBs, heavy metals, and painted concrete."

Impacts to groundwater ~~form~~from rubblization cannot be underestimated. Since there are additional contaminants of concern other than radiation, then it is in

everyone's best interests that all agencies and stakeholders work cooperatively for the common good and the best outcome. In doing so, we will truly set a decommissioning standard for the public good and the nation as a whole.

I, again, thank the NRC for the opportunity to provide our comments on this scoping process. If we do have other issues and we do identify them, then we will make sure that those comments are submitted by the July 14th comment deadline. I do have some copies here available.

MR. CAMERON: Thank you, very much, Pat. We're going to go to Paul Genoa and then we'll go over to Rosemary. Paul?

MR. GENOA: Yeah, thank you, Chip. Paul Genoa, G-E-N-O-A, with NEI. I have a couple of brief comments, so I won't be coming up front. First I want to say that I believe these meetings are very important. I think a whole range of issues were brought up tonight. Many of them were inadequately addressed and I think, that, you know, because they perhaps were outside of the scope planned for the meeting. But, I think answers are important for the public, because they have -- they have real concerns, and I think those answers all exist. This isn't getting up and having a conversation -- but I think those questions should be answered.

And, finally, related to the GEIS, I think that

we, NEI, would agree that some of the subjects mentioned, such as rubblization, entombment, and I'd like to agree with my friend from Canada over here, that partial site release is one of the first things that came to my mind, as well. This is something that wasn't necessarily envisioned and it is something that makes a lot of sense. It should be covered. And I think, also, perhaps the whole issue of how -- I agree that when components are cut within the reactor, I think a true analysis of that -- do you give real people today 100 man rem of exposure, you know, to cut these components, so that you can perhaps avoid a hypothetical risk to someone of greater than 25 millirem 10,000 years from now is something that perhaps hasn't been clearly evaluated.

And I guess I just would encourage the NRC to think about the breadth of comments that get generated in these meetings and, you know, maybe develop some frequently asked questions or answers to frequently asked questions and have them available to help you out, because you can't bring the entire NRC staff with you and these questions do cover a lot of range of issues. Thank you.

MR. CAMERON: Okay. Thank you, Paul. Rosemary, do you want to use the hand held or do you want to come up here?

MS. BASSILAKIS: I'm fine.

MR. CAMERON: Okay; okay. Thank you for being here and for your comments. Mary?

MS. LAMPERT: My basic question is on radiation -- acceptable radiation levels. I think I've missed something. I thought there was this ongoing debate between EPA and NRC, EPA going for 15 -- 4 and NRC going for 25 to who knows. I -- what I'm leading up to, I thought that had not been 100 percent resolved. It's been a year or so going. And if, in fact that's correct, it would seem reasonable to me in figuring out financial assurance to assume the more conservative, hence, probably the more expensive level to achieve, than to be going on the assumption that the higher level is going to be God's last word, because then the bucks won't be there and that will carry that ball going along.

MR. CAMERON: Okay. Another question on financial assurance and a tie-in between the NRC standard. Can we say anything about where the controversy between NRC and EPA are, because I think that's what you want to know? Steve or Stu?

MR. CAMPER: Yeah, Larry Camper.

MR. CAMERON: Okay. Let's go to -- Larry Camper is branch chief of Decommissioning in our Office of Nuclear Materials, Safety, and Safeguards.

MR. CAMPER: The difference between the EPA and the NRC, perhaps even a controversy in the minds of some,

has been wrapped some time. This is the 25 millirem ALARA that is embodied in our decommissioning rule versus a level of risk that arises from the EPA regulations associated with non-radioactive issues, chemical, in particular. It ranges between 10 to the minus four, to the minus six. They have been translated depending upon what value is used and what assumptions are used for a particular calculation.

When this rule was put in place, the Commission made a decision -- an ALARA value. The Commission believed then, and continues to believe, that 25 millirem is adequate to protect public health and safety. There is no scientific data to the contrary. The two agencies still have a difference of opinion about that, although the EPA has opted thus far not to embody the 15-4 position as a standard. It could do that, but it's opted thus far not to do that. Its position, at this point in time, is a value that is derived from its chemical regulations; therefore, this difference continues. There has been discussions -- ongoing discussions between agencies, as to how these issues might be resolved.

The fundamental difference is that while one can look 10 millirem or 15 millirem in the case -- look at this and say it's a lower millirem, therefore, it's a better number. There is -- a lot of scientific consideration has to go into that. The two agencies differ from the approach

how do get those numbers. It really comes down to what values you use.

[Off mic.]

MR. CAMERON: You're not getting on the -- Mary, I think that Larry gave a good explanation of where the issues stands and I think that Mike and Steve heard the financial assurance implication. And if you need to talk further with Larry, we'll do that. We have one last comment from Ray Shavdis. Ray, you want to come up?

MR. SHAVDIS: In including proportional risks, if there are any comparative risks, as you go through different options and processes, I just want to urge caution in putting in comparative risk numbers as offsets for various whatever -- criteria of various processes. My specific example, I think, comes from the decommissioning rules. I recall that there was a risk comparative for truck drivers hauling contaminated materials offsite. That was balanced against the risk of the materials remaining onsite and someone -- their health being affected by it. And when I saw that, my question was, one, did the truck drivers make this choice voluntarily or the decommissioning workers make this choice voluntarily, whereas other people may be inadvertently exposed not having the choice. And then secondly, it occurred to me that if the truck drivers don't get a job driving that stuff, they're going to driving

something else.

So, from that perspective, deemed that a comparison and I just wanted to urge caution that they're going to be putting those kinds of comparisons in. Thank you.

MR. CAMERON: Thank you, very much, Ray. I'd just like to thank everybody for coming out and for your attention and thought on this. And I'm going to ask Stu Richards, who is the manager on this, along with Mike on this, Stu to say a final word for us.

MR. RICHARDS: I'd like to thank everybody for coming out tonight and appreciate all your comments. I'd like to respond to one question Mr. Shavdis asked. I think you asked whether we're motivated to do this. The industry, for some reason, would have made their life easier, but I can tell you right now for the record, the answer is no. I want to make that is very clear, the answer is no.

Again, as we've told you at the beginning of the meeting, there is an opportunity provide written comments. I think Dino Scaletti provided his e-mail address and surely will take comments that way, also. We've got a lot of feedback tonight. So, we certainly appreciate all of your comments. Unless there is something else, thank you, again.

[Whereupon, at 10:40 p.m., the meeting was concluded.]