UNITED STATES OF AMERICA

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NUCLEAR REGULATORY COMMISSION

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PALISADES SCOPING PUBLIC MEETING

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THURSDAY

JULY 28TH, 20005

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SOUTH HAVEN, MICHIGAN

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The Palisades Scoping Public Meeting met at Lake Michigan College, 125 Veteran's Highway, at 7:00 p.m.

PRESENT:

Chip Cameron, Facilitator
Rani Franovich, NRC staff
Robert Schaaf, NRC staff
Richard Emch, NRC staff

P R O C E E D I N G S

(7:05 P.M.)

MR. CAMERON: Good evening, everybody. My name is Chip Cameron. And, I'm the special counsel for the Nuclear Regulatory Commission, the NRC. And, I want to welcome you to the NRC's public meeting tonight.

And, our subject is the environmental review that the NRC is going to conduct on a application that we received from Nuclear Management Company to renew the license to operate Palisades nuclear power plant.

And, it's my pleasure to serve as your facilitator tonight for this meeting, and in that role, I'll try to help all of you to have a productive meeting tonight.

I just want to go over a couple of things about meeting process before we get started with the substance of our discussions tonight. And, the first thing I'd like to tell you about is the format for the meeting. It's basically going to be a two part format.

In the first part, we're going to give you, the NRC will give you some background information on our license renewal process, what types of things we evaluate in deciding whether to renew a license for an operating reactor, and specifically what types of environmental information we look at.

And, we'll have some questions after those brief presentations to make sure that we have explained things clearly, and

that you understand what our process is all about.

And, the second part of the meeting is an opportunity for us to hear from you. Your advice, your concerns, your recommendations about the license renewal process. And again, specifically about the environmental review process. What types of issues should we be looking at when we prepare the draft environmental impact statement.

And, the NRC staff will explain a little bit more about that. We're going to be taking written comments on these issues, but, anything you say tonight will have as much emphasis as a written comment.

We are taking a record. Mr. Stuart Karoubas, a court reporter is with us tonight and he's taking a transcript and that will be your written record, our written record of this meeting. And, anybody who wants to get a copy of the transcript, we'll be able to get you a copy of it.

In terms of ground rules for the meeting, tonight. They're very, very simple. When we're in the question and answer period after the NRC presentations, if you have a question, just signal me and I'll bring you this little microphone, and please introduce yourself to us, give us any affiliation that you have, if that's appropriate, and we'll try to answer your question.

I would ask that only one person at a time speak so that we can give them our full attention, tonight. But also, so that Stuart, Mr. Karoubas can get a clean transcript so that we know who is

talking at any particular time.

I would also ask you to try to be concise in your questions. We're not really too time pressured tonight but, if you can be concise, we'll make sure that we have time for those who have questions or want to make comments.

And, when we are in the question format, I'd like to remind you that we're on questions, sometimes we have a tendency to slide over into comments. But, that's fine, but, if we can just keep the questions to that portion, and then, we'll have a comment period later on.

When we do get to the comment period, I'm going to set a guideline of seven to ten minutes for people to talk so that we can go on to other people. If you want to speak, I think we've had several people who have filled out the yellow cards for talking. That's just to give us an idea of how many people want to talk. '

If you haven't filled out a card, and you decide you want to say something during the comment period, just tell me and we'll put you on to give us your comments.

And, in terms of the NRC speakers, let me introduce them to you. We have Ms. Rani Franovich right here. And, Rani is going to give you a welcome, formal welcome and tell you some basic facts about the license renewal process at the NRC.

And, she is the chief of the environmental review section, in our Office of Nuclear Reactor Regulation. And, Rani and her staff are responsible for developing the environmental reviews,

not only for licensing renewal applications like this one, but, for other environmental reviews that are done in connection with reactors.

And, Rani has a lot of experience in different aspect of the NRC's work. She has been a resident inspector. These are the NRC staff who are actually at the plant and are available 24 hours a day to make sure that NRC regulations are being complied with. She was a resident inspector at the Catawba nuclear power plant in South Carolina.

She's been with the NRC for 14 years. She's been a project manager on the safety reviews of these types of license renewal applications. She was most recently the enforcement co-ordinator, the enforcement of NRC regulations in the Office of Nuclear Reactor Regulation. And, in terms of her educational background, she has a Bachelors in Psychology from Virginia Tech. And, she has a Masters in industrial and systems engineering.

MS. FRANOVICH: No.

MR. CAMERON: Okay, from Virginia Tech. And then, we're going to go to Mr. Robert Schaaf who's right here. He is on Rani's staff. He's the project manager, the person in charge of the environmental review for the Palisades license renewal application.

And, Bob has been with the NRC for 15 years in a variety of positions. He's also worked in our regional offices like Rani has. He's been a project manager on the operating reactors, and, including the project manager for Palisades, for this particular plant.

So, he knows the plant and he knows the area well. And, before Bob came to the NRC, he worked on engineering support for submarines at the Charleston Naval Shipyard in Charleston, South Carolina. He has a bachelors in mechanical engineering from Georgia Tech. And, I'm going to turn it over to them, now. I just thank you all for being here and helping us with this decision. And, go ahead, Rani.

MS. FRANOVICH: Thank you, Chip. I'd like to reiterate our thanks to all of you for coming out to this meeting. The process is one that we value public participation and so, thank you all. I know you're all very busy and it takes some time out of your day.

Also, I want you to know how happy I am to be here. I got in yesterday evening and went down to the pier at South Haven, took a little walk on the beach and drove around the neighborhoods. You have a very lovely community here. I'm sure you're all very proud of it.

I hope the information we provide this evening will help you to understand the process we're going through in evaluating the application for license renewal from Nuclear Management Company for the Palisades plant, and the role you can play in helping us make sure that our environmental impact statement addresses all the important environmental issues, including those that are important to you.

First, let me provide some general context. For the license renewal process, the Atomic Energy Act gives the NRC the authority to issue operating licenses to commercial nuclear power

plants for a period of 40 years. For the Palisades nuclear plant, that license will expire in 2011.

Our regulations also make provisions for extending those operating licenses for an additional 20 years. Nuclear Management Company has requested license renewal for Palisades.

As part of the NRC's review of that license renewal application, we'll perform an environmental review to look at the impacts on the environment for an additional 20 years of operation. The purpose of this meeting is to give you information about the process, and to seek your input on what issues we should consider within the scope of our review.

At the conclusion of the staff's presentation, we will be happy to answer any questions and receive any comments that you may have on the process and the scope of our review. We have several members of the NRC staff here, as Mr. Cameron indicated earlier in his opening remarks.

As I indicated, the license will expire in 2011 with 20 additional years of operation that would, if granted, continue to operate until 2031. And, before I get into the discussion of the license renewal process, I'd like to take a few minutes to talk about the NRC in terms of what we do and what our mission is.

The Atomic Energy Act is the legislation that authorizes the NRC to regulate civilian use of nuclear material in the United States. In carrying out that authority, the NRC's mission is three-fold. To ensure adequate protection of public health and safety. To

protect the environment, and to provide for the common defense, and for security.

The NRC accomplishes it's mission through a combination of regulatory programs and processes, such as inspections at the nuclear facilities, enforcement actions, assessment of licensee performance and evaluation of operating experience for nuclear plants across the country as well as internationally.

Turning now to license renewal in particular, the NRC license renewal review is similar to the original licensing process in that it involves two parts. An environmental review, and a safety review.

In addition, as part of the safety review, the staff carries out inspections and audits. And, the results of the review are presented to the advisory committee on reactor safeguards. And, I'll explain the role of the advisory committee or ACRS in just a moment.

This slide gives a picture of the overview of the license renewal process. As I indicated, there are two parallel processes, the safety review and the environmental review. I'd like to talk about the safety review for a minute.

Safety review involves the NRC staff's review and assessment of the safety information that's contained in the application for renewal. There's a team of about 30 NRC technical reviewers and contractors who are conducting the safety review at this time.

I'd like to introduce Mr. Michael Morgan who's the safety project manager. Thank you, Mike. He's in charge of the safety review which includes audits and inspections.

Safety review for license renewal focuses on how Nuclear Management Company will manage the aging of certain structures, systems, and components that are within the scope of the license renewal review. Some of the programs for managing aging are already in place, while others will be implemented as part of license renewal.

The audits and on-site inspections are conducted by a team of inspectors by both headquarters and NRC's Region III office in Chicago. A representative from our inspection program that's here today, the senior resident at Palisades is John Ellegood. And, John, if you could stand up? Okay, thank you. There's John.

The results of the inspections for Palisades will be documented in separate inspection reports. The results of the staff safety review as well as the results of inspections will be documented in the safety evaluation report.

The staff safety evaluation is independently reviewed by the advisory committee, the ACRS. This committee is a group of nationally recognized experts in nuclear safety who serve as a consulting body to the Commission. They review each license renewal application, as well as the staff safety evaluation report and form their own conclusions and recommendations and report those conclusions and recommendations directly to the Commission.

Now, I'd like to focus on the environmental review

process. It's a parallel process to the safety review process. It involves an environmental review with scoping activities and the development of an environmental impact statement. As I've said, we're here today to receive your comments on the scope of that review.

We'll consider any comments on the scope that we receive at this meeting, or in any written comments that you provide when we develop the draft of the environmental impact statement. And, in February of next year, we expect to issue that draft environmental impact statement for comment.

So, you can see from the slide that the final Commission decision as to whether to approve or deny the application for renewal involves several inputs. A safety evaluation report, the inspection reports that document the results of the on-site inspections. The environmental impact statement and the independent review of the ACRS.

I'd like to point out that the yellow hexagons on this slide, like that one, these all indicate opportunities for public participation, such as this one. This was actually an early opportunity. The meeting on the draft environmental impact statement will be another opportunity for you.

At this time, there also is still an opportunity to request a hearing. That opportunity is available through August the 8th. And, the ACRS meetings on the Palisades license renewal will also be open to the public.

That concludes my presentation. Thanks again for being here with us. And, I'll now turn it over to the environmental project

manager, Mr. Robert Schaff. Bob?

MR. SCHAFF: Thank you, Rani. Once again, my name's Bob Schaff. I'm the environmental project manager for the review of the Palisades license renewal application. I'd also like to extend a welcome to everyone and thank you for coming out to share your comments with us.

I'll spend the next few minutes explaining the environmental review process for the license renewal application and how you can participate in that process.

A little background. The National Environmental Policy Act of 1969, or NEPA, requires that federal agencies follow a systematic approach in evaluating potential environmental impacts associated with certain actions. We're required to consider the impact of the proposed action, and to consider mitigation for impacts that we consider significant.

We're also required to consider the impacts of alternatives to the proposed action. For license renewal, alternatives would include construction and operation of replacement power generating facilities. Or, alternative means for replacing Palisades' generating capacity.

The NEPA process requires development of an environmental impact statement, or EIS for any proposed action that may significantly effect the quality of the human environment.

NEPA and our environmental impact statement are disclosure tools. We identify and disclose to the public the

potential impacts of a proposed action. This process is specifically structured to involved public participation. This meeting is a part of that effort to involve the public in our environmental review.

We're here to gather information on the scope of our review, that is, what specific environmental issues should be considered for the proposed Palisades license renewal.

The NRC staff developed the generic EIS or impact statement for license renewal. We also refer to that as the GEIS, that identifies a number of issues common to all nuclear power plant license renewal applications. We are supplementing that generic EIS with a site specific EIS or SEIS, that will address issues that are specific to the Palisades site.

Now, I'd like to provide a little information about the GEIS. The generic environmental impact statement for license renewal, also known as NUREG-1437 identifies 92 environmental issues that are evaluated for license renewal.

69 of these issues are considered generic, or category one, which means that the impacts are similar for all reactors, or for all reactors with certain features such as plants that have cooling ponds.

Only certain issues addressed in the GEIS are applicable to Palisades. For example, GEIS issues related to cooling ponds are not applicable to Palisades because the plant uses cooling towers instead of cooling ponds.

For those category one issues that are applicable to

Palisades, we will assess whether there is any new information related to that issue that might effect the conclusion reached in the GEIS. If there's no new information, then the conclusions of the GEIS will be adopted for Palisades.

If new information is identified and is determined to be significant, then a site specific analysis will be performed for that issue. In the GEIS we concluded on a generic basis for all plants that those 69 issues, the impacts were similar, mitigation would not be required and we adopt that conclusion if we don't identify new and significant information.

MR. CAMERON: Can we just hold the questions until after he's done? And, I will go right to you?

MS. BARNES: That's okay. I just wanted to --

MR. CAMERON: Maybe there's a quick thing we can clarify right here for you --

MS. BARNES: I was just wondering where can you find a list of the 92 issues and the 69 generic ones?

MR. SCHAFF: Right. They're identified in the generic impact statement which is available on our website. They're also codified in the Code of Federal Regulations 10CFR, Part 51, where they were adopted from the GEIS. Also, in our supplemental impact statement for Palisades, we do identify all of the issues that were addressed in the GEIS. And, for those category one issues, we summarize the conclusions that were reached in the GEIS. And, then for applicable category two issues which I'll get to in a minute.

MR. CAMERON: And, we have one back there that you can look at and we'll make sure that you know how to get a copy of it.

MR. SCHAFF: Right. And, as noted by the arrow there, identification of new and significant information for category one issues is one area where public participation during scoping is particularly important.

I think it's important to note that although we reach generic conclusions on these, we don't just set them aside. We look for whether the conclusion that was in the GEIS was appropriate for each site that's evaluated. And, that's part of why we're looking for additional information, whether we should reconsider any of those conclusions.

Now, what's new and significant information? New information is information that was not considered in the development of the GEIS. That, this information would be considered to be significant if it would cause us to reach a different conclusion regarding that issue than was determined in the GEIS.

Of the remaining 23 issues, 21 are referred to as category two, indicating that the NRC staff found that a site specific analysis would be needed to determine the potential impacts. For example, potential impacts to threatened or endangered species would need to be evaluated for each site, because the species which are present will differ from one site to another.

The remaining two issue, environmental justice and potential chronic effects of electro-magnetic fields

were not categorized in the GEIS, and a site specific analysis is needed for these issues. And again, a site specific analysis will be performed for all category two and uncategorized issues which are applicable to Palisades.

Finally, we will look for potential new issues that were not identified in the development of the GEIS. And, identification of potential new issues is another area where public participation can be particularly helpful during the scoping process.

Now, this next slide shows our decision standard for the environmental review. To paraphrase, we're trying to determine whether the environmental impacts of the proposed action are great enough that maintaining the license renewal option for Palisades is unreasonable.

In plainer language, is license renewal acceptable from an environmental perspective?

This slide lists important milestone dates for our environmental review. The highlighted dates indicate opportunities for public involvement in our review process.

Our Federal Register notice of intent to prepare an environmental impact statement and conduct scoping started the scoping period for our environmental review. That notice was issued June 27th. The purpose of scoping is to scope out or define the bounds of our environmental review.

As I noted previously, we're especially interested in identifying new, any potential new and significant information

regarding the category one issues, or any potential new issues that were not considered in the GEIS. This meeting is a part of the scoping process. Again, comments from the public are an important tool in helping us define the scope of our environmental review.

The meeting is being transcribed and comments provided here carry the same weight as written comments sumbitted to the NRC. Written comments can also be submitted to the NRC, through means which I will identify shortly, through August 22nd.

And, I'll note that although that's the identified date for the completion of our scoping process, to the extent possible, we can consider comments that are received beyond that date, but, really only be a few days, typically. But, there is some small amount of leeway. And again, as Rani mentioned, the closing date for the opportunity for hearing is August 8th.

At the end of the scoping period, we'll issue a scoping summary report in October in which we will address all of the comments that we receive, both here and in written comments that are submitted to the NRC.

And then, we anticipate publishing the draft SEIS in February of next year. We will provide an opportunity for public comment on the draft. And, we plan to have another meeting here in April to receive comments on that draft. Once the comment period closes, we will develop the final SEIS, which we expect to publish in October of next year.

If anyone would like to receive a copy of any of these

reports, we need to have your name and address. You can provide that information on the blue cards at the registration desk in the back of the room.

At this point, we're in the process of gathering information to prepare our draft SEIS. As indicated here, we rely on a range of information sources. During this week, members of the NRC staff and our team of environmental experts from Argonne National Lab, and Lawrence Livermore National Lab have been conducting an environmental audit to gather information.

In addition to meeting with the applicant, Nuclear Management Corporation, and observing conditions at the site, members of our team have also been meeting with local, state, and other federal agencies to gather information. In fact, several members of our team were up in Lansing just this morning meeting with the state department of environmental quality.

Comments provided at this meeting and written comments submitted to the NRC by August 22nd will also inform our review.

Our team looks at a wide range of environmental areas. Some of the areas considered include air quality, water quality, and potential effects on plants, wildlife and the people living in the vicinity of Palisades. We also consider environmental justice, which focuses on whether there are minority or low income population groups that may be disproportionately impacted by the proposed license renewal.

This slide provides my phone number and e-mail address

in the event that anyone has questions following this meeting. I'm the designated point of contact at the NRC for the environmental portion of the license renewal review. As noted earlier, Mike Morgan is the project manager for the safety and aging management portion of the review.

Although I'm providing contact information here, we still need to get your comments in a, in some form that we can document, either in writing, or through comments given at this transcribed public meeting. The transcript will become the written record of your comments.

Arrangements have been made for the documents associated with our environmental review to be available locally. The South Haven Memorial Library, located in South Haven has been kind enough to make some shelf space available for documents relating to our review.

Also, documents are available through our document management system, which can be accessed on our Internet web page. The draft and final environmental impact statements will also be posted on our license renewal web page.

Now, after this meeting, comments can be submitted by mail, by e-mail, or in person at the NRC headquarters. You can send written comments to us at the address shown, either the postal address or the e-mail address. Finally, although not too many people take advantage of this option, you can deliver your written comments in person if you're in the Rockville, Maryland area.

As a reminder, written comments are due to us by August 22nd.

This concludes our formal presentation on the review process. And, we can take any questions you have on that process now.

MR. CAMERON: Okay, thank you, Bob, and thank you, Rani. And, I think this point on that we did have a request at this afternoon's meeting to extend the comment period on scoping. And, the NRC staff is going to have to make an evaluation of that. But, I think at this point, just assume that it will be the same until you're notified that it is different. I would imagine that that will be posted.

MR. SCHAFF: Right. I think if we chose, if we did decide to extend the comment period, I believe we would re-issue a register notice and then information on it we would also post on the license renewal web page.

MR. CAMERON: Okay, great. Thank you. And, people can always contact you if they want further information.

MR. SCHAFF: Right.

MR. CAMERON: All right. Are there questions? Can we answer any questions for -- yes, sir, and, please just introduce to us.

MR. KEEGAN: Yes, my name is Michael Keegan. Has the NRC ever denied an application for a 20 year license extension? And, which plants and under what circumstances? And, did those denials get appealed by the utility? Have you ever said no?

MR. SCHAFF: To date, the applications that have been accepted for docketing are either still under review or have been

approved. We did receive an application from a facility in Pennsylvania which we determined was not acceptable for docketing. It did not have sufficient information. And, it was returned to the utility. My understanding, I don't know if they've indicated yet whether they intend to resubmit.

MS. FRANOVICH: The facility Bob is talking about has indicated that it will resubmit an improved application for renewal in October of next year.

MR. CAMERON: And, one other thing that may bear onto the question. Can you talk about the process of request for additional information from an applicant that, if those are not satisfactorily met and things change to our satisfaction, then, it might well result in a rejection. But, can you explain that process to people?

MR. SCHAFF: Yes, yes. Yes, as Rani discussed on the process, the applications undergo extensive review. We're talking about thousands of hours of inspections and audits and staff review. The environmental review alone is several thousand hours of staff time and technical experts from the national labs.

And, as part of that process, in the audits, the inspection teams that come to the site are seeking additional information that they need to come to a finding on issues. Also, as part of the safety review, we issue numerous, what we call RAI's or Requests for Additional Information to the applicants seeking additional information.

And, I think sometimes out of that process, the applicant will make changes to their programs, and we may have commitments that they make to make changes in those program, or carry out certain programs.

So, it's not a simple process that we get it, we give it a quick once over and we issue an approval. We're talking about literally, probably 10,000 hours of review time. That may be a little high, but, you know, 8 to 10,000 hours probably of review time and interactions with the applicants.

MR. CAMERON: Okay. Thank you.

PARTICIPANT: I have a --

MR. CAMERON: Sure.

PARTICIPANT: The National Discharge Permit, is this part of the consideration? I'm talking about the biocides, the slimicides, the -- size, the heavy metals, the petro chemicals that are put out of this plant on a daily, routine basis? Are those going to be part of the EIS?

And, relating to the EIS, is an Environmental Impact Statement required, or are you going to be looking at an environmental assessment with a FONZI, or are we going to have a full EIS?

MR. SCHAFF: The Commission has determined for license renewal that we will issue an environmental impact statement and the form it will take is a supplement to the generic impact statement. To your other question, one of the issues that was identified in the GEIS is water quality, surface water quality and as part of our review of

that, we do look at the NPDES permitting process. Does that answer the question?

PARTICIPANT: Yes. That's all I have for you.

MR. CAMERON: Okay. All right. Can we, anybody else have a question about things? Yes, sir?

MR. KARCH: Yes, my name is Gary Karch, that's with a K. And, I have a question where economic issues come into this. My, what I mean by that is how much this 20 year license renewal, how much guaranteed loans and tax incentives and the millions of dollars is this going to cost taxpayers? Because to me this plant is so old that it would literally have to be rebuilt in order to continue for another 20 years. That's where I'm coming from.

MR. CAMERON: Okay. Rani, are you going to talk a little bit about how we do consider economic considerations?

MS. FRANOVICH: Well, I think that that's a socio-economic consideration that we have for the environmental review. Bob, correct me if I'm wrong.

As far as the tax incentives, my understanding, and I'm not an expert in this area, but, my understanding is that the utility passes costs of its operations onto the people who pay their electric bills.

So, the NRC does not give them any incentives to apply for renewal. And, as far as anything that would be passed on to the rate payers, that would be something that Nuclear Management Company would do, not the federal government. Does that answer your question?

MR. KARCH: Yes, it does, thank you.

MR. CAMERON: And, it might be instructive for people to look at a draft environmental impact statement or environmental impact statement that's been done on another license renewal to give you an idea of what types of economic considerations and alternative energy sources are considered.

And, those are available on our website, too. But, often that gives you a better idea of what goes into one of these things. Bob or Rani, do you have anything more to say on that before we move on to someone else.

MS. FRANOVICH: If we've answered the gentleman's question, than we can move on.

MR. CAMERON: Okay. Let's go right here and then we'll go to Corinne, and Ken Richards and then right here. Yes? And, introduce yourself, too.

MS. BARNES: My name's Kathy Barnes. And, I've got a lot of questions. One is, are you going to, in the environmental assessment take into consideration the creation, storage and transportation of nuclear waste. Also the geological strata underneath the plant, the shifting sands, the impermeability of it?

And, I was wondering also if you were gathering information from public agencies? Have you gathered information from the Public Health Department on the cancer rate in South Haven and Covert. Do you consider Covert as an environmental, what do you call that, what was that term you used? Yeah, the justice issue?

MR. SCHAFF: The environmental justice?

MS. BARNES: Because, yes, mainly African American and Latino community. And --

MR. CAMERON: Kathy, can I just stop you right there so that we can try to --

MS. BARNES: One more, I, yeah, I wondered what information you gathered from social services, too?

MR. CAMERON: Okay. Bob, do you mind if I try to just summarize those for you. One was a question on how does the environmental impact statement deal with radioactive waste transportation --

MS. BARNES: And, storage, if you look at --

MR. CAMERON: I'm just trying to summarize, okay? Second thing was how does the environmental impact statement or how does the NRC review, look at what might be called seismic foundational issues under the plant, that's the second one.

We had a third one about, that relates to what we call epidemiology, cancer rates, and I'm going to go to Rich Emch to answer that for you. And, there was something on environmental justice and how do we, I think the implication, we mentioned social services, how do we gather information to do that type of analysis?

We might want to start with the high level waste question and explain how that is treated in this process. And then, maybe move to the what I'll just call the seismic issue, so that we know a short hand way of referring it to, to that.

And then, go to Rich Emch for epidemiology and maybe come back to the environmental justice thing to you guys, okay? So, we're going to go through this all for you. And then, we'll see if you have, if that explains everything to you so we can then go on to Corinne and Richard and this gentleman back there? Okay? All right, Bob?

MR. SCHAFF: Okay. Starting with the question of waste generation, transport, fuel cycle and waste is a category one issue in the GEIS. That is an issue that we evaluated across the population of plants and we determined the impacts were similar for all sites, that no additional mitigation would be required.

The details of that assessment would be in the generic impact statement. It really will just have a relatively brief discussion of it in the SEIS. Again, that is an area where if there is information you have that can help us reevaluate that, well, we encourage you to bring it forward.

I don't know if you want to explore that one further. That's a good short answer maybe.

MR. CAMERON: Why don't we try and answer all of those questions and then we'll come back and see if she has any follow up on that. But, basically, on the high level waste issue that was category one issue, that was analyzed in the generic environmental impact statement?

MR. SCHAFF: That's correct.

MR. CAMERON: Okay, can we talk about whether in license

renewal we look at anything relating to seismic, any considerations like that? Rani?

MS. FRANOVICH: Sure, sure. When the plants are initially licensed, this one was initially licensed I guess in 1961, based on --

MR. SCHAFF: '71.

MS. FRANOVICH: Okay, '67, '71. They have to meet certain design requirements. And, there's something the NRC calls the design basis earthquake. And, that's the worst case seismic event for this region.

MS. BARNES: I didn't say seismic, I said impermeability, shifting sand.

MS. FRANOVICH: I understand, and I'm going to get to that. So, they're designed to withstand the design basis earthquake for the region. Now, your question had to do with sand shifting at the site. And, for the safety review side, not the environmental review, but, the safety review, we have structural and civil engineers who evaluate the aging of the structures at the site to ensure that they are not cracking or degrading in some way that they could not continue to provide their design basis function.

So, that is part of the staff's review. If there were a shifting of the sands or earth at the site, it would reveal itself in the structures. You'd see cracking, you'd see shifting of the structures at the plant. So, the staff would, in its inspections, identify that.

MR. CAMERON: Okay. So, let's go to Rich for the epidemiology. This is the cancer rate issue that Kathy asked about. Richard Emch, NRC staff. He's a health physicist with our staff. Richard?

MR. EMCH: Before I get to that, let me just say just a couple more words about spent fuel storage. I think that was one of your original questions. We've talked about whether it's an issue that we look at. But, one of the things that I wanted to mention is, is they employ two forms of storage at Palisades for spent fuel.

One is the spent fuel pool. The other one is dry cask storage. And, they actually have two forms of dry cask storage. And, the Commission has reviewed both of those approaches and has concluded that those are both safe methods of temporary interim storage of the fuel until Yucca Mountain or another facility can be brought to operation.

We did not, switching to cancer statistics, we did not specifically talk to the Michigan Department of Public Health or whatever their particular name is. We did, this morning, meet with the Michigan Department of Environmental Quality, the Radiation Protection staff of the DEQ, and they didn't express any concerns about cancer rates.

And, in fact, a very important point that I wanted to make here is, the releases from this plant are quite low. The maximum dose for a person off site would be less than .1, that's .1, one tenth of a millirem per year. We need to contrast that with natural

background which we all are exposed to and that's in the range of 360 millirem per year. So, we're comparing one tenth of a millirem to 360.

The 360 is from cosmic radiation. It's from naturally occurring radionuclides in the soil and building materials. It's from radionuclides that are in our body just because we're humans. And, medical sources of radiation, if you take a cross country flight, you get two or three millirem in extra cosmic radiation.

There are wide variations in this background. The people living in Denver are 5,000 feet higher than the people living in Miami, and they get a much bigger dose from the cosmic radiation. So, there's wide variations, but, again, I want to contrast, I mean, a less than .1 millirem versus a 360 millirem per year from all these other sources.

In addition, in 1990, Congress asked, or requested the National Cancer Institute to do a study around nuclear power plants and other nuclear facilities to evaluate the known data, all the known data about cancer statistics. And, the result of that 1990 study was that there was no evidence of any excess cancers around any of the nuclear power plants. Palisades was included in that study.

MR. CAMERON: Okay. Thank you, Rich. And, some of the implications, Kathy, about what Rich is saying is that the NRC is usually not the agency who goes out and looks at incidence of cancer. It's usually either the state health department or a federal agency called the Agency for --

MR. EMCH: Toxic Substances and Disease Registry.

MR. CAMERON: Toxic Substances and Disease Registry. But, we do use studies of radiation and cancer in setting our regulations for releases from plants and protection of the public that are in our 10CFR, Code of Federal Regulations, part 20.

MS. BARNES: Do you have any plans to contact --

MR. CAMERON: And, we, let me get you on the record here.

MS. BARNES: Do you have any plans to contact the Public Health Department for, you know, reports about the high incidence of cancer in this area?

MR. CAMERON: We can take that as a recommendation coming out of this meeting to look at that. And, we will do that. And, let's go to your, a related question in terms of getting data, the environmental justice question. And then, I'm going to move on over to Corinne and some other people so that they can get a chance to ask questions. We know you all have a lot of questions.

Bob, the issue was environmental justice, and the related issue was, and Kathy, I'm just trying to sort of summarize what I think you were going to, and you tell me if I'm wrong about this. How do we gather data in terms of doing our review for environmental justice?

MR. SCHAFF: Okay. In the application, in the environmental report that the applicant submitted with their

application, they did provide demographic data for the surrounding area. We will verify that data. Typically we look at data from the U.S. Census Bureau. And, I think now we're using the 2000 Census as our source of data.

I don't know if you had any more on that question, but, yes, I mean, we will evaluate environmental justice. It's one of the issues that is specified to be evaluated in each site specific impact statement.

MR. CAMERON: Okay. And, we do have some of our experts that are helping us with this evaluation. Expert scientists who are with us and perhaps they can talk to you after the meeting to just give you more of an idea of how this is done, or get an idea of what your concerns are on that.

Corinne? And, please introduce yourself to us.

MS. CAREY: Thank you. Yes, Corinne Carey from Grand Rapids. And, to go back to the other issues someone brought up about isn't it easier or better or safer to simply rebuild the plant?

And, I have heard the term that retrofit is cheaper than repairing damages. Is that true, and how much retrofitting will be done, and what kind of criteria do you use? What percentage of retrofitting would you expect would be economically feasible, or environmentally?

MR. CAMERON: I think that the retrofitting is all, is tied up into the evaluation of aging that we do and in terms of the rebuilding, maybe we could say a little bit about what types of

alternative energy sources we look, alternatives on energy supply we look at in the environmental impact statement. It might answer this and also help Mr. Karch.

MS. FRANOVICH: As far as modifying the plant, retrofitting the plant, that would be an economic decision that would be made by Nuclear Management Company. So, they have the option to renew the plant as a nuclear power plant, that's the option they've chosen.

But, for them to choose to modify the plant, when you say retrofit, do you mean to maintain the plant as a nuclear power plant, or, do you mean to convert it to some other type of generation plant?

MS. CAREY: Well, probably it would be maintaining, oh, maintaining as a nuclear plant --

MS. FRANOVICH: Right.

MS. CAREY: -- because a plant that is built for that specific purpose would not be functional in any other purpose.

MS. FRANOVICH: Okay. Just wanted to make sure I understood your question. They actually retrofit the plant annually. They implement plant modifications all the time at all of the nuclear power plants as a way of improving efficiency, enhancing safety, reducing their core damage estimate, or core damage frequency, it's a risk kind of approach they're taking to reduce risk of an accident or a consequence of an accident.

So, they are retrofitting the plants even today. They

will continue to do that for license renewal in part because it's required by the rule, and in part, because it'll help them run their plants more efficiently in the future.

So, that is part of what they propose to do to make it safe enough to operate for another 20 years.

MR. CAMERON: And, on the alternative energy sources that -- Bob could you just talk a little bit about that?

MR. SCHAFF: Yeah, we'll evaluate a number of alternatives, generation sources as required by NEPA in evaluating the impacts. Part of our mandate is to evaluate alternatives to the proposed action. And, the alternatives we'll evaluate simply, the no action alternative. That would be not renewing the license, and evaluating what the impacts of that are.

And, primarily, that concerns issues such as, you know, the socio-economic areas, the loss of the tax base to the local community, the loss of jobs. Those are the most significant areas in that evaluation typically.

We'll also evaluate alternative power generating facilities. Typically we'll evaluate a gas fired plant, a coal fired plant, we will sometimes, because there is interest in the nation, in building new nuclear plants, we sometimes include a new nuclear facility as an alternative in our evaluation.

We will evaluate a combination of alternatives where we try and look for what is some way that Nuclear Management Corporation and Consumers Energy can satisfy the lost generation capacity. And,

that might be partly by building a smaller gas fired plant. Partly by purchasing power from outside their service area to import on the transmission grid. And, partly by carrying out some demand side management measures, efficiency improvements. And, sometimes we also include some quantity of renewables in our combination of alternatives.

MR. CAMERON: Okay, great. Thank you. Thanks, Bob. Let's go to this gentleman here. Yes, sir.

MR. KANTMAN: Maynard Kantman. I live about 10 miles due east of the nuclear power plant we're talking about. And, I look over there at the cloud of smoke and I'm very anxious because I hear from people, I don't know if it's true or not, and this is a question for the group here to answer, is that, this is an older plant, and there's some problem potentially with embrittlement in container or in the core. And, I would like to know how serious that is and whether that needs to be fixed or replaced prior to being, having the license be done. That's one question.

The second question has to do with the notion that there might be renewable sources of energy as alternatives and I don't know why that wasn't mentioned among the possibilities that you just reviewed. Because, in fact, wind power is a fantastic source of energy and it would come online a lot faster than additional nuclear power plants, which I know are present at a loss.

MR. CAMERON: And, could you just quickly, Bob might not have mentioned renewables, but, then, correct me, that is something

that is looked at in the alternative analysis because we've had draft environmental impact statements that have gone extensively into the possibilities of wind, for example.

MR. SCHAFF: Right. We do evaluate it. It's usually not as detailed an evaluation as for some of the traditional base load power generating facilities. I mean, we're talking about a plant here that is a baseload generator. It's on the grid 24/7 except when it's down for a maintenance outage and refueling.

And so, other generally viable replacement options for something like that are a gas fired plant and a coal fired plant. When you're talking about replacing that much power, 800 megawatts with something like wind, for example, you have to factor in the capacity available.

Typically a wind turbine facility has something like a 35 or 40 percent capacity factor, I think it is. That's the percentage of time that it's operating. And, you're talking about a facility that's operating 85, 90 percent of the time that you're trying to replace.

And so, the most viable options that we typically find are the gas plant, the coal fired plant. But, we do address the other alternatives that are available, and it's a fairly exhaustive list, actually. Thank you, Chip.

MR. CAMERON: And, it may be when you see that analysis in a draft environmental impact statement that you may have a lot to offer comment on, you should do this or do that. But, that's why we,

one of the reasons why we issue it as a draft. Now, can we discuss the embrittlement issue.

MS. FRANOVICH: Yes. Before we go to that, you mentioned the steam that you see coming out of the cooling towers and that you have a little anxiety over that. I can assure you that steam is very unlikely to have any radioactive material or --

MR. KANTMAN: I --

MS. FRANOVICH: I understand. As for the embrittlement issue, what you're talking about is embrittlement of the reactor vessel, the pressure vessel itself. And, the pressure vessel as it ages, it does become embrittled due to neutron exposure.

However, these vessels have a design life. And, they also have a tech spec surveillance requirement that involves taking specimens from the vessel material, analyzing them to make sure that you are not approaching some vulnerable point in the vessel.

So, the licensees currently are analyzing these specimens to make sure that their estimates of the embrittlement are on target. And they refine their estimates as a function of the data they're getting from these specimens. They're doing this now. It's required by 10CFR, Part 50, I believe it's 50.61, it's called the pressure, pressurized thermal shock rule.

They also are required to follow this rule, perform a time limited aging analysis. I know that is a mouthful of words, but, basically an analysis that says it's good for the first 40 years, and here's why we think it's good for an additional 20 years. They submit

that to the NRC in their application, we review it and make sure that it's acceptable to us before we say, yes, we agree the vessel will be good for another 20 years. Very good question. Thank you.

MR. CAMERON: And, let me just back, we sometimes have a tendency to throw a term around that doesn't make a whole lot of sense to all of you probably. But, all of the rules that the NRC establishes for nuclear power plants or waste disposal, they're all collected in, as other agency, other federal agency rules are all in something called the Code of Federal Regulations, okay. And, our acronym for that is CFR.

So when I talked before about Part 20, those are our radiation protection standards that are in here. So, and Rani just mentioned that and she has the most recent copy of our regulations right here. This is the CFR. So, we're sorry that we, I guess it's a complicated society, but, that's the thing.

MS. FRANOVICH: It is 10CFR 50.61, fracture toughness requirements for protection against pressurized thermal shock events.

MR. CAMERON: Okay. Let's go to Kevin has a question, and Richard, you had a question. Let me go to Richard, you had your hand up before. I'll go back to Kevin and then we'll see if we should go to comments then.

Richard? And, please introduce yourself.

MR. RICHARDS: My name's Ken Richards. And, over the years I've heard a lot of de-commissioning dates for Palisades. One is the current de-commissioning date of the license --

MR. CAMERON: All right.

MR. RICHARDS: When can we expect this thing to close? Because I've been hearing for, you know, 20 years.

MR. CAMERON: So, I guess the question, I'm sorry?

MR. RICHARDS: What is the date now?

MR. CAMERON: If the license is, if the license is not renewed, when would it --

MR. SCHAFF: It'll be 2011.

MR. CAMERON: When would it go into de-commissioning. It all depends on when the license period is over right?

MR. SCHAFF: Right. It would be 2011, I think what Ken's getting to, we talked about earlier is the issue with pressurized thermal shock for Palisades. Palisades, in that rule, there's something called a screening criteria, which is a calculated value for vessel embrittlement, which is a screening point, where, if the vessel were to reach that screening criteria, the utility would have to do something.

It's not a, that's, it's not a dead end. It is a point at which the utility either needs to anneal their vessel, that's a process where they would heat the steel and restore some of its ductility, reduce that embrittlement.

Another option available to them is to do an assessment of the vessel at that point, a more detailed assessment of its ability to withstand a pressurized thermal shock event. And, over time, through assessment of these specimens that Rani spoke of, and through

refinements in the calculation of the amount of exposure of the vessel to neutrons, that date that the plant would reach the screening criteria has changed over time.

And, I think when we spoke, that that's the dates that you were hearing, is when the plant was expected to reach the pressurized thermal shock screening criteria value.

MR. CAMERON: Okay, thank you. Thank you, Bob. Let's go to Kevin and we'll take one more question, and then we'll take comment, and do you want some, Mike do you want to add something to that?

MR. MORGAN: Well, there was --

MR. CAMERON: And, we need to get you on the record. What I was going to say is that after we make sure that we hear everybody's comments, if people have more questions, we'll go back to questions, then. But, we'll come back to you, we'll go to Kevin and then you, sir. Mike?

MR. MORGAN: I'm, again, Mike Morgan the project manager for license renewal for Palisades on the safety side. And, I get to a couple of public meetings and I recognize a few faces here. We've had this question before. Ken, you had another part to this question and maybe Bob or I can answer this.

MR. RICHARDS: Well --

MR. CAMERON: We need to get him on the record -- unless you get him the microphone.

MR. RICHARDS: Well, I've been hearing de-commissioning

dates since we built these things. 1967 I was down in Cook when they built that, and I was told, well, we're going to run it for 40 years and then we'll be building another one.

We're going to fill this one up with concrete, it's going to be done. Now, that's what we were talking like in this -- things have changed. But, over those years, I've heard several different de-commissioning dates, we're going to shut it down, tear it down, haul it all off somewhere. And --

MS. FRANOVICH: Let me try to answer.

MR. RICHARDS: I was hearing dates of '98, I've heard, I was hearing that back in like 1991.

MS. FRANOVICH: Even in 1998?

MR. RICHARDS: I've heard a 2002 date, I've heard the 24, they just keep, you know, you're being told things by the NRC and by the industry, this is what's going to happen down the road, and it never happens, or something else happens. Makes us a little nervous -

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MS. FRANOVICH: Well, I can tell you that had the facility not decided to apply for license renewal then their current license will expire in 2011. And so, de-commissioning will follow that. So, until we get the application for license renewal, or, an indication from the utility that they're interested in renewal, then we assume that that will be the time that de-commissioning starts.

I don't know that we ever targeted a date prior to the end of the 40 year license, that we would begin de-commissioning the

plant. And, frankly, at a certain point before the license expires, it's a business decision, it's an economic decision for the utility to make. So, that would be under their purview, to make that decision.

MR. CAMERON: Mike, do you want to say anything?

MR. MORGAN: Yes, one thing that Rani mentioned before is that all the vessels, when they constructed the vessels they put in a, what's called a specimen tube inside the vessel. And, in takes parts of the actual metal pieces and puts this down into the tube, so that they can periodically can extract those pieces. This is the same metal that the vessel was made of.

And so, these specimens will be subject to the, relatively the same neutron environments that the vessel undergoes for all these years. So, as they extract these and look at the specimens they can then analyze or re-analyze to see if the age of that vessel, if it can still meet all the criteria for pressurized thermal shock, and, for the additional time over the 40 year life of the plant.

Now, one of the items that should be considered here in 50.61 was presented here. There are a lot of options that have been presented. One is the annealing option. No plant in the United States has ever gone through annealing. I'm going to tell you that right now. But, it's still an option.

There are other options that Bob has mentioned, which is a more detailed review to see if, in fact, this will stretch out the life of the vessel. Or, a close monitoring on a more frequent basis is another option.

But, what goes ahead of all of those options, is three years before any projected date, they must present to the NRC, even if it was midway through this whole 20 year cycle, and we come up and say, okay, we've come to a point where we feel it can't go beyond this date.

Three years before that date we have to get a detailed analysis from the applicant, at that time the licensee, detailing what they're going to do. And, you're going to have another one of these public meetings I can assure you for any of those types of discussions at that time.

So, it's not one of those things like, okay, here it is today. Now, you've got to do something about it. It's going to be here's what we predicted, this is what we've got. Hey, this is the date, three years ahead of time. We've got to see you material three years ahead of time and then we go into analysis even before we get near that date.

MR. CAMERON: So, great. Thank you. Thank you very much. Let's take two more questions. We're going to go to Kevin and then come back up to this gentleman. Kevin?

MR. KAMPS: Kevin Kamps, Nuclear Information. This is a follow-up on what all three of you just talked about, I guess, in terms of embrittlement. It's my understanding, correct me if I'm wrong, Rani, I guess, that the specimens have been exhausted within the reactor vessel so that the best that can be done now is extrapolation from the most recent samples, which, is that accurate?

MS. FRANOVICH: Well, there was a plant, was it Maine Yankee? There was a plant that did run out of coupons and so they decided that since they could no longer monitor their vessel, they would shut down. And, so they did not opt for renewal, they're de-commissioning.

Bob has indicated to me that there's an industry sharing program where, and I seem to recall something about this, that this is just my understanding of it. Industry can identify reactors that have similar characteristics, similar manufacturing process, maybe were purchased from the same vendor and can share data based on the exposure of radiation over time they account for the number of hours or days that the vessel has been exposed to an operating environment at certain power levels and can share that with other member of the industry so that they have more than just one source of data, the source being their vessel. They can actually see data from other operating units. Does that answer your question?

MR. KAMPS: Not entirely. Does Palisades have samples anymore? Or, are they completely out?

MS. FRANOVICH: I think NMC would need to address that question. Is there a representative from NMC who can?

MR. VINCENT: I can answer that.

MR. KEEGAN: They ran out in the ninth cycle

MR. VINCENT: That's not correct.

MR. KEEGAN: Well --

MR. CAMERON: Wait a minute. Can I just wait before

people start talking because we do need to get this on the record. And, if there is a quick clarification that can be offered by the company let's get it on the record now. And, let's get one more question here and go to comment and if you want to explore this further, we can do that. Let's, so you heard the question from Mr. Kamps. And, please introduce yourself.

MR. VINCENT: I am Bob Vincent, I'm the licensing lead for the license renewal project at Palisades. Palisades does still have some surveillance coupons in the reactor vessel. Our license specifies the coupons that we have to maintain in the reactor vessel for this kind of surveillance, it specifies when they have to be removed. It specifies what kind of testing has to be done.

And that's the way that we monitor, or we verify the condition over the long term. But, we are definitely not out of coupons and if necessary we could take similar material and put it back in the vessel and actually expose that material to higher levels of neutrons than the reactor vessel is actually exposed to, it's called accelerated exposure.

And, we can actually use accelerated exposure to expose similar materials to the same levels of exposure that the vessel currently has. So, we do have surveillance specimens left. And, even if we didn't, which is not the case, we could, that's still not a show stopper.

MS. FRANOVICH: Thank you.

MR. CAMERON: Okay, thank you and I'm going to go to,

and I think, is it Mr. Keegan?

MR. KEEGAN: It is Mr. Keegan.

MR. CAMERON: I'm going to go to you for your question, okay. And then, we're going to start to go into the comment period. If we need to discuss this particular issue in detail I think we're going to, we'll probably do it after the meeting with everybody who's interested in this. But, Mr. Keegan, do you have another question?

MR. KEEGAN: Regarding that, that will be on the record after that we discussed after the meeting?

MR. CAMERON: That will be off the record. If you want to offer anything short on this subject on the record, I think you're going to be making a, can you do something short right now?

MR. KEEGAN: I'm trying to get a point of clarification here. My understanding, I've reviewed the embrittlement question extensively. My understanding is it ran out of capsules on the ninth refueling outage. And, I just heard, Bonnie, I'm sorry, I don't have your last name.

MS. FRANOVICH: It's Rani Franovich.

MR. KEEGAN: Rani? Rani talked about a second generation of samples that were put in. Now, we're gotten apples and oranges and I'm a social scientist and I can see this methodology is severely flawed.

So, I need to know for the record are the original samples still within that reactor? Because my understanding reading Consumer Power documents that they've exhausted that on the ninth

refueling.

MS. FRANOVICH: Let me reiterate.

MR. CAMERON: Can we try to, if we can, I know this is complicated. But, can we try to keep this short --

MS. FRANOVICH: Yes.

MR. CAMERON: -- so, that we can get onto other issues. And, if we need to come back to clarify on the record, if some of you need to get together to talk about this so that we can offer a clarification on the record, let's do that. I'm just afraid that we're going to keep stumbling back and forth here. So, in that regard, Rani, can you give us a --

MS. FRANOVICH: Let me reiterate what I was explaining. That is the process we use to monitor vessels, or that licensees use to monitor vessels now. I wasn't speaking specifically of Palisades. We can take your concern, your question back to the staff and have someone at the NRC contact you who has more intimate knowledge of Palisades and the status of their vessel monitoring program.

MR. CAMERON: And, we could if it's a concern to you, we can put that answer up on our website, perhaps, if you're worried about documentation of it. Okay?

MR. KEEGAN: I need that point of clarification and I need to know specifically at Palisades.

MS. FRANOVICH: Make sure we have your contact information so we can have a member of the staff contact you.

MR. KEEGAN: You know where I am, I've been --

MR. CAMERON: Okay. Did you have one more question?

MR. KEEGAN: No.

MR. CAMERON: All right. Well, let's, if we have time, we'll go back to questions. Let's go to the speaking part of the meeting and we're going to start off with some local government officials. And, I didn't specifically ask Mr. Rendell this, but, Mr. Rendell, did you want to say anything at all?

MR. RENDELL: I didn't really have a comment.

MR. CAMERON: Okay, All right. This is Mr. Wayne Rendell, supervisor from Covert Township. Let's go to Mr. Ross Stein. Ross? Do you want to come up and then talk to us, or, do you just want to say, do you want me to bring this to you? It's up to you, whatever is more comfortable to you.

MR. STEIN: I always keep things short and sweet and to the point.

MR. CAMERON: Okay. Well, we'll test you on that, then.

MR. STEIN: I'm Ross Stein, I'm the supervisor to South Haven Charter Township. Earlier in the year, we passed a motion at a township board meeting supporting the licensing process for Palisades nuclear plant. Palisades has been an excellent neighbor for the community. The people that work there are civic minded.

We have people that are boy scout leaders, have served on township boards. Palisades has been very community oriented. They've helped the, I'm chairman of the emergency services. They've helped the fire department, the emergency services. They help

community functions also, so, it's a very welcome aspect to this community.

The people there provide, buy homes, have children for the schools. As probably everybody in this room knows, for every dollar that's spent in the community, that dollar's circulated six or seven times, so it's a good economic asset to the community. So, that's all I've got to say.

MR. CAMERON: All right. Well, thank you. Thank you very much, Mr. Stein. We're going to go to the license applicant now, Mr. Paul Harden to tell us a little bit about their rationale for license renewal and Mr. Harden is the site vice president at Palisades.

MR. HARDEN: Thank you. As was mentioned, my name's Paul Harden. I'm the site vice president of the Palisades nuclear plant. I just want to spend a few brief moments talking from Nuclear Management Company's perspective, the benefits of the Palisades nuclear plant.

First off, let me talk about what the plant generates. Approximately 800 megawatts each hour. To put that in perspective, that's enough to power a community of more than 500,000 residents. For Consumers Energy, who owns the plant, that's about 18 percent of their generation. So, it's close to five out of every 24 hours of electricity that goes into every customer of Consumers Energy home is produced by the Palisades nuclear plant. And, as has already been mentioned, there are some financial benefits to local communities from

the plant. In addition to its payroll of about $60 million, there's also the tax base, which last year was about $6.3 million.

But, there's many more important aspects I'd like to touch on. First off, the Nuclear Management Company operates the plant for Consumers Energy, who owns it. We took over operation of the plant in 2001. Since taking over, performance of the plant, relative to safety and reliability, has improved significantly. And, that's led to Consumers Energy deciding to seek license renewal.

We wouldn't be here seeking license renewal if we didn't feel this plant could continue to be safe to operate for another 20 years.

Some of the benefits include, you know, the support for the local units of government, the tax sharing entities, the community schools, the district libraries, hospital authorities. But, there's also other things. We support the emergency management activities in the area for the counties of Alleghan, Berrien and Van Buren.

Palisades has received letters and resolutions of support from 13 different local government bodies including the city of South Haven, the townships of Covert, South Haven, Geneva, Antwerp, Columbia, Decatur and Pine Grove, the Greater South Haven Area Chamber of Commerce. U.S. Representative Fred Upton, and the concurrent resolution from the Michigan State House and Senate. These bodies wouldn't have supported our license renewal if they also didn't feel that we could continue to be a safe provider for another 20 years.

Nuclear energy is clean air energy and by that, what I

mean is, nuclear power plants produce no controlled air pollutants such as the sulfur, the particulates, greenhouse gases that come from fossil fuels.

To put Palisades in perspective, to replace the generation from Palisades, it would require about 12 million barrels of oil per year. In terms of coal, it would be about 3 million tons of coal per year. And, in terms of natural gas, it would be about 65 million cubic feet of natural gas per year.

Nuclear power in Michigan is about 25 percent of the generation in Michigan from the three nuclear plants that exist. Palisades, the commitment to move forward for license renewal was not just a commitment for an application and to process the paper to justify.

It's also a commitment to make significant investment in the plant, capital investment that includes upgrades, equipment change outs, many things that have been ongoing in the past and many more that are ongoing in the future. And all these are being done for the sake of keeping the plant safe in the future.

The 600 employees at the plant, those 600 employees also live in all the local communities that surround the plant. And, those employees also have a vested interest in making sure that we're an environmentally safe and sound nuclear power plant. And, that's what we intend to do through our continued operating license period if approved.

The picture, the vision that we paint for the employees

at the plant is a picture of excellence. It's not one of meeting minimum federal requirements for things like environmental effluents. It's a picture of excellence in being the best in the industry, shooting for top -- to be better than others in doing that, not just for minimum standards. And, that's the commitment the employees at that plant make every day and are going to continue to make under through an extended license period. Thank you.

MR. CAMERON: Okay. Thank you very much, Mr. Harden. We're going to go to Mr. Larry King, and then to Kathy Barnes, and then to Elizabeth Anderson as our next three speakers. Mr. King?

MR. KING: Thank you. My name's Larry King. I represent the Greater South Haven Area Chamber of Commerce. I appreciate the opportunity to come out tonight. And, it's good to see so many faces from around the state and the nation here to talk about the local plant.

What I want to speak to, briefly, is the socio-economic impact and to reiterate some of the things that were in our statement from the Chamber board of directors over to the NRC and the Palisades plant and Nuclear Management Corporation.

The plant has a significant economic impact on the area. 600 plus employees, not to mention the contractors in the area. At least one third of those folks live right here in the immediate South Haven vicinity. That's a lot of payroll dollars being spent right here in our community. A couple of folks I know that work out there said you could bump the payroll anytime you want.

And, the other side of it is the contractors when you go into an outage. Lots of the small businesses that sit on the Chamber board and made the decision to support it, look at those outages and those opportunities when the plant is back reinvesting, cleaning things up, doing a lot of maintenance, that's a lot of extra folks in town spending money, doing and making things happen.

There's also an element beyond the financial impact from that payroll. That's the involvement of those men and women that work out there. They are involved in the community. You'll find them serving on different public boards and commissions. Boy scouts, girl scouts, 4-H, coaching basketball, baseball, softball. Just a tremendous social impact from their involvement.

And, you can see in that involvement, their commitment to safety out at the plant. I do know a number of folks that work out there, and they are very safety conscious, and they bring that home with them and into the work that they do in the community and in their social lives. So, we're very pleased to have the plant here, and encourage the re-licensing and reinvestment here in the South Haven Area. Thank you.

MR. CAMERON: Thank you, Mr. King. Kathy, do you want to come up? This is Kathy Barnes.

MS. BARNES: Hello. I'm really, really happy that so many people showed up for this meeting. And, I have found out that the NRC has also rented the room in August and September. Not sure what the meetings are going to then, but, I'm going to try and find

out, and I hope everybody can just keep on finding out about the meetings and coming to them. It's really important to get the public involved.

The only two nuclear reactors that were shut down when they applied for re-license were in the state of Maine. And, basically it was because the public came out and expressed their concerns. I think this community, although you say, they've done a good job with their PR. They've got plenty of my pocket money in light bills etcetera and everybody else's to do that. And that's nice.

But, there are so many things going on in this community. There's a high cancer rate. I have got, you know, different things have happened to me. Swimming, etcetera. When I was a kid, I came here and swam. And, the water was clean, I could drink it. Now, it's full, it's scummy, it's full of algae. It's a huge change in the quality.

The water's still cold. That does not explain the algae. So, there's a lot of things in the environment I think that are happening that are unexplained. One thing that really bothers me about this whole process is that it's the fox in the hen house that's doing the reporting.

All this data is being collected through Palisades. I talked to someone who used to work at Palisades, they no longer work there. They said they would not ever work there again. They work at another nuclear power plant. I said, well, why, you know, is it because, like at DC Cook, they did a coverup, you know, on their

condensing systems where for 10 years they covered up the fact that their ice condensers would not work in the event of a meltdown?

And, he said, no. He said they don't cover things up. He says they just don't report things. So, you know, wool being pulled over the eyes, there are a lot of probably things that are not reported.

This generic analysis of nuclear reactors as far as aging. You take a nuclear reactor in sunny California, it's going to age differently than a nuclear reactor in freeze and thaw conditions here in Michigan. There are so many variables.

Generic analysis doesn't take into account variables such as spills, leaks, accidents, staff problems, lack of reporting, paper conflict with the truth, in other words, inaccurate reporting, climate change or unexpected events. That's another thing that this whole process doesn't seem to realize, the possibility of nuclear terrorism, unexplained, unexpected events.

You know, you can, every nuclear power plant that ever had an accident they said it wouldn't happen. You know, they didn't think Chernobyl would happen, they didn't think Three Mile Island would happen. There have been so many nuclear accidents and spills all along the trail of the nuclear industry from mining on up to transportation.

The nuclear waste issue is a huge issue that isn't being addressed. Twenty more years of nuclear waste buildup, where is it going to go? Are we going dump it on the Indians? I mean, that is

not right. It is not right to take nuclear waste and track it across country and dump it on native lands.

It is also not right to store it on the shore of Lake Michigan, where there could be nuclear terrorists or something and just totally wipe out the fresh, that huge wonderful fresh water resource.

So, these are such huge issues. Embrittlement, the cancer rate, I've talked to people in this community who've said different horror stories about workers that have had cancers and terrible things have happened to them. People that are cancer survivors, people that have deaths in the family from cancer.

Someone said that that eight out of ten people in this area either have cancer or know someone with cancer in their family or know someone who has died from cancer. The last two meetings I mentioned, you know, let's get the public health reports. This should be included. But, no. The public health was not contacted. Do we have to get an FOIA to find out the statistics?

As I understand it, there was a cancer study that was done and should be able to be procured. So, I have a lot of concerns about this and I think that it needs to be shut down. Up north, Consumers Energy has been combining with Mackanaw Wind Power and they're putting up wind generators. It is possible.

Wind generator is a clean energy source and it is like Maynerd was saying, it's quick. It takes over quick. It doesn't, it's not like building another monster. It's just, you put it up and

it starts working.

Combination of wind and other systems, and we've got it made here in Michigan and we can keep our water clean. But, if you take that chance and you re-license this facility thinking well, the next issue we will deal with it, we can analyze it.

It is false pride, and it is not worth it, because, you talk about kids. What are you going to do if there is a meltdown? How are you ever going to get your kids back? You won't. You will give everything you have to get your life back and get your kids back. You might have kids that have cancer. You might have kids that are killed instantly. You could have kids that will have kids like at Chernobyl, your grandkids might be mutated.

I mean, I've met the kids of Chernobyl. And, if you saw those kids, how wounded they were. They were blind, they were handicapped, it was so sad. And, there was American kids who were healthy and playing and vibrant and alive and here are these poor kids. And, the only difference is, a meltdown.

And, I think that another 20 years of this nuclear power plant in operation is risking a meltdown and I don't want it. And, I think anybody in this room does not want that to happen here. And, honestly, I think from studying everything, especially because it's too much of the fox in the hen house doing the reporting, it just cannot be guaranteed. And, I thank you for your time.

MR. CAMERON: Thank you very much, Kathy. Elizabeth Anderson?

MS. ANDERSON: I'm not very good at a podium. May I please stay here?

MR. CAMERON: Sure, absolutely, absolutely.

MS. ANDERSON: Elizabeth Anderson. I was born and raised in South Haven. And, I don't want to see anybody lose their jobs. But, I must admit, I was raised by people who were against nuclear power. And, I'd like you to meet my girlfriend Laura, she didn't want to speak. Laura is a cancer survivor, born and raised here.

Her mother, cancer survivor, born and raised here. Her sister, cancer survivor born and raised here. Her sister used to swim down by the nuclear power plant, but, in '95 they had to remove a seven and half pound tumor from her abdomen.

Now, I don't know if that has to do with nuclear power, but, you know, they are born and raised here. And, her sister-in-law, her step father worked at the nuclear power plant. And, one day, his lungs filled up with blood and he died at the age of 39. I don't know what that was from.

But, there are a lot of points brought up. I remember when I was a girl there was a young boy that disappeared at the state park. They found his sandals. The next year, they found him, he had suffocated from a sand trap. And, I don't know, I just think that maybe it's a good, we've got new power plant right across the way. And, maybe that could just, you know, ease this one out and pump this one up. Thank you.

MR. CAMERON: Thank you, Elizabeth. Thank you very much. We're going to -- yes, ma'am?

MS. MILLER: Marilyn Miller.

MR. CAMERON: Okay. We have some, do you want to speak?

MS. MILLER: I wanted to say, to ask the question.

MR. CAMERON: Okay, Marilyn.

MS. MILLER: Have you a record currently on the penalties that have been given to this power plant, and the times it's had to be turned off. And, does that have any influence on re-licensing? Do you have a record of that?

MR. CAMERON: I'm sure we do, and Rani will answer that for us.

MS. FRANOVICH: That's a good question.

MR. CAMERON: In terms, Rani of how past violations effect the license renewal review.

MS. FRANOVICH: That's a good question. We do have a record that goes back to the day that the plants were licensed to operate, for all the plants. We, since Three Mile Island, we've had an inspection program and the inspection program is what primarily provides us with a means of ensuring compliance with regulatory requirements.

When that compliance is not maintained, then the NRC does identify performance issues. It issues violations, sometimes there are escalated enforcement actions that involve civil penalties and fines.

That all being said, 10CFR Part 54 which is the rule that governs license renewal is very focused on management of plant aging. So, past performance and current performance are not part of the scope of the license renewal review. The scope of the license renewal review is specific to the management of aging of systems, components and structures that are considered important to maintaining safety at the plant. Does that answer your question?

MR. CAMERON: Okay.

MS. MILLER: It does, it sounds like it isn't any part of your focus, then?

PARTICIPANT: I'd like to answer that --

MS. FRANOVICH: Correct. We also impose currently, 10CFR Part 50. 10CRF Part 50 is the regulation that governs operation of the plants. And so, they still have to meet regulatory requirements and they're still subject to enforcement when they do not comply with our requirements. But, it's not part of the license renewal review.

MR. CAMERON: Okay. Thank you, Rani, and we're going to hear from John Ellegood who is our senior resident, I believe, and then we're going to go back to Mr. Keegan and others speaking.

MR. ELLEGOOD: Well, the past performance and current performance isn't part of license renewal. It is part of a continuous, ongoing evaluation of licensee performance. Every day we evaluate the licensee and their performance and we hold them to their technical specifications, the minimum safety requirements they need to

meet on a day to day basis.

If they don't meet them, the licensee has specific actions they are required to take. If they don't take them, there are mechanisms to force them to shut down at that time. And, there would be extreme penalties if a licensee refused to shut down.

In addition, there are annual reviews of every operating nuclear facility in the country to look at their annual performance and identify performance deficiencies that require additional attention from the NRC. So, while it's not part of license renewal, it is part of ongoing, day to day activities by the NRC. Does that answer your question?

MS. MILLER: It sounds as though it's mostly a matter of correcting the problems, rather than how many infractions there have been.

MR. ELLEGOOD: We do focus on current plant performance. We don't go back 10 years and say, gee, they had operational problems 10 years ago. We look on their, we look at their current performance. We do try to anticipate downsliding performance.

We have a oversight process that is intended to identify slipping plant performance and cause the licensees to take additional action if their performance is poor and declining, before they can no longer operate the plant safely.

MR. CAMERON: So that there is a connection if a licensee continually was making the same mistake, let me put it that way, then, that would go into this evaluation of performance?

MR. ELLEGOOD: That is correct.

MR. CAMERON: Okay. Thank you. We really need to go back into our speakers and let Mr. Keegan come up next. But, Elizabeth, do you have a quick question?

MS. BARNES: Well, this relates to that. You know, I live outside of South Haven, so Consumers is my electric company. And, I remember reading in the South Haven Tribune once that they were cited for safety violations, and this was a long time ago. This was in the 80's.

The operations manager of the plant said that he was going to ask for a rate increase. And, I thought, you put my life in danger, you endangered my safety, and now you're going to raise the rates to pay for your fines. And, I wasn't real happy about that.

And then, I met somebody in '86, he said that he worked there and he said that there was a drug problem there, and that they fired a bunch of employees who were on cocaine. Now, again, this is just rumors, but I know my ex-husband had a friend who was a pipe fitter who went there to get a job. And, he said when he applied, they gave him a paper that told him how to beat the drug test. And, I hope that's not true, but, that's what he said. Thank you.

MR. CAMERON: Okay. Thank you. This is Mr. Keegan. Are you ready to come up?

MR. KEEGAN: Yeah. Hello. My name is Michael Keegan. I'm from Monroe, Michigan, and I'm a board member of Don't Waste Michigan. And, I'm looking forward to intervening.

But, on the schedule that you put up with all the dates, perfunctory meetings and niceties, I didn't see a scheduling for the ASLB in there. And, what happens once we intervene. And, what happens to this process then.

I did mention embrittlement. I've been a student of Palisades since about 1987 shortly after the Chernobyl accident, when I began meeting with some activists, citizens over in this area.

The embrittlement, I reviewed that extensively and I've got, I don't have with me, but I do have a motherload of documents that are currently with my attorney and you exceeded, Palisades exceeded the embrittlement standards in 1981.

And, the NRC capitulated by rolling back the standards and at my count, you've now rolled them back, changed methodologies five times. I'm a social scientist. I'm trained in the scientific method of research and design. And, I can spot some problems, major problems with your methodologies. You'll see that in our contentions that we raise.

I'm also concerned with the just general mechanics of the nuclear power plant in the Palisades. The, there's a number of components on there that can't be inspected unless it's shut down because of configurations on some J welds that are on some penetrations. They could be cracked, we don't know. Allow us to continue through our cycle. All these kinds of lax, this kind of cozy arrangement between the Nuclear Regulatory Commission and the utility it's all self-serving.

The bottom line is, who's regulating this utility? It is the public. And, it's not going to be the NRC who is going to come down heavy on these folks. It's going to be the public who's going to force them.

I could go on for days. Frankly, I could go on through the night. And, bore you to tears, but, I won't do that. You asked, I'm trying to be helpful, here, you know. You asked what are some new contentions.

The Palisades plant is in a location where there is singing sand. It's one of four locations on the planet to have this singing sand. The granules are round. If you walk on them, they call it singing sand, because you'll hear them make a noise. But, the point is, they give you no footing. They're subject to blowouts, which means a big wind comes in and blows out a bluff.

The dry cask storage, the pads are sitting right there where a big blowout could come in and cover them. The, so you go into seismic questions. Well, yes, if there was an earthquake, you've got, now you've got this sand that's going to shift.

So, singing sand, this is definitely something that is site specific. There are only four locations in the world that have it. It was a major issue. It continues to be so.

I'm perplexed by the, who's culpable? Nuclear Management Company is coming forward and requesting this license extension. Or, is it CMS who's requesting it? What assets does Nuclear Management Company own? Who's going to be left holding the

bag if they do have their accident here, or CMS folds. Twenty years is a long time.

And, as we saw a few years back, CMS was involved in some round tripping and cooking their books, major, I think to the tune of $5.4 billion. So, there's a credibility problem here and so, I'm really wondering, who's the NRC giving approval to? Is it to Nuclear Management Company? Or, is it to, is it to CMS? What is their relationship?

The relationship is further compounded by the chairman of the board of Nuclear Management Company is, I believe, David Joos, J-o-o-s. I think he's also the CEO of CMS. So, there's, you know, some incestuous things there, potential conflicts of interest.

So, I'm also requesting an environmental, an economic impact statement. What's the potential of danger, hazards to tourism? This is a beautiful, beautiful lake, up and down the lakes, fishing, tourism. Tremendous for the economy of Michigan.

The economy of Michigan depends on tourism. What happens if they do have the big one? We got this arbitrary ten mile zone. Do the radio-nuclides stop at ten miles? Do they stop at 50 miles? Do they hit me over in Monroe? Do they contaminate 20 percent of the world's surface fresh water? What are we gambling with?

It's all public risk, private profit. And, I have a problem with that. And, this is an aging plant. It got their license in 1967. They were scheduled to license termination in 2007. They got an extension arguing that, we did not actually go into operation

until '71. The decades of the 80's and 90's were, oh my G-d, the plant ran at about 44 percent, what a dog.

It's been on the market. It's been on the market, my understanding, since early 90's. There are no takers. Is this just posturing so that there's another 20 years of amortization for CMS or NMC or whoever would come along and buy this turkey?

But, I could tell you, through my review, extensive review of embrittlement, and written on it, and presented in public forums, Mark Savage had to sit through one of them a few times. He knows how boring it can be. But, let me tell you, this plant should have been shut down in 1981. And, we're going to take you to task. And I am looking forward to it. Thank you.

MR. CAMERON: Thank you Mr. Keegan. Mr. Kaufman, would you like to come up and talk to us, or, do you want to stay there?

MR. KAUFMAN: Are you talking to me?

MR. CAMERON: Yes.

MR. KAUFMAN: Kaufman, yeah. I just want to reiterate a word about renewable sources of energy. And, I want to do this in the context of something that all you energy folks are very well aware of which is that within five years or so, we will have reached a global peak in oil production. And, geologists have been telling us this for 30 years.

But, it seems that they were on target and that indeed, that is going to be happening. And, that means production will

decrease as demand, globally, increases, and that means prices for the fossil fuels will go up and up and up. And, at this point in time, therefore, it is so important that we do everything we can to not only conserve which we haven't started yet, but also to use more renewables.

And, I'm not here to say that it may not be possible, after lengthy public participation in this issue of what the proper mix of energy sources is. It may be possible that nuclear is part of that. Especially in the post fossil fuel era. I want this discussion to be a public discussion.

And, I don't want to see corporate money being made over the public protests. Which is what happens. That's what's happening here now. And, I don't think that's right. And so, if that can be corrected, then, I think we can have a really good public discussion about what the proper mix of energy sources is. And, it may be, because nuclear is clean in some ways, that that may be part of it. I'm not the one to be able to decide.

But, in the mean time, there is much that can be done for renewable energy and incidentally, the argument that you only get it 35 percent of the time, doesn't really apply too much, because the grid is all over the country, and if you use that same grid for distribution, there's going to be wind blowing and sun shining someplace in the country.

So, that way we'd have a reasonable source of energy to that as well as whatever other options exist, but, there'll be a lot

less of it than we enjoy now.

MR. CAMERON: Thank you very much, Mr. Kaufman, and we'll look forward to getting your comments on the analysis that we do on the alternatives.

Corinne, do you want to talk to us? This is Corinne Carey.

MS. CAREY: Yes. I'm from Grand Rapids. And, the, some of the maps that we have seen show that Grand Rapids, at least the part I live in, is past the farthest circle that's encircled as to what, the interested area.

And, yet, that's still not far enough. Fallout goes a long, long way. I do want to ask, number one, how many people were here this afternoon? I don't want to repeat too much. Oh, all right, then, gosh, it's kind of a new audience.

And, another question, I really am kind of curious. How many people are officially connected with the nuclear industry or NRC? Is that a legitimate question? So that there are quite a few people here that could be considered public. All right, okay.

Now, I have the impression after 20 years of Don't Waste Michigan, that the public really doesn't know very much about nuclear issues although I think that, at least I find there are people scattered everywhere I go that are very much interested because they realize that energy is one of the major issues that is part of our world today and our future, my grandkids' time.

And, that, yes, we need to do something about these

energy issues. But, I still, I'm very much, I'm sorry, my e-mail address is antinuke. And, so you can contact me, antinuke AOL.com.

Now, there's several things that I didn't talk about this afternoon. I think I'm quoting Edward Teller correctly, or at least in intent when I, now he's the guy, of course, that worked up the hydrogen bomb and so on, and worked nuclear all his life.

To me, he's been an epitome for me of the whole nuclear issue. And, it seems to me that he even said that the only right place for a nuclear reactor is on the sun. Am I wrong there? Misquoting or what? At least, I think, I agree with him, that the only place for a nuclear reactor is on the sun and obviously we're not going to shoot the waste or do our nuclear stuff on the sun because getting up there is the other part of the problem.

One of the questions that hasn't come up enough, I think is, what are the plans for the rad waste? Now, old Frank Kelly said a long time back, that nobody knows what to do with a teaspoon full of the stuff. And, we still don't. Sixty years into the nuclear age, and we still don't know.

So, I think that has to be a very important environmental component of the issue of whether this plant is re-licensed. To keep on making this stuff doesn't make sense.

There's a whole bunch of questions. There's comments about the dry casks, but, I won't say too much about that except that there they sit. And, I'm wondering how they're going to get to wherever they're going to go on site. And, how they're going to get

beyond that, because they're 28 tons each, I understand. And, they're, they can't be moved, transported on the highways at all, or any other commercial fashion.

And, they can't take them apart, even though that was the original plan, because there's something about the shims that were used to keep the lid in tight. And, if they take the lid off or the shims out they could fall into the already deteriorating contents of the dry casks.

And, oh, I understand, too, that each dry cask holds the equivalent of 250 Hiroshima bombs. Am I outrageous on that statement? Anybody correct me please? The other thing is, I understand the last I knew anyway there are 16 dry casks. Are there more? What's the current quantity?

MR. CAMERON: Corinne, we'll try and get you an answer to that. Dwight?

PARTICIPANT: Nobody can say off the top of their head --

MR. CAMERON: Right now, okay. But, if you could just --

MS. CAREY: Wind it up, okay.

MR. CAMERON: -- keep things on the record. But, let me see if we. Do we know how many dry casks there are?

MS. FRANOVICH: I do not know. I don't know if she's asking across the country, or if she's asking --

MS. CAREY: No, Palisades, right here.

PARTICIPANT: It's 29.

MR. CAMERON: Okay, 29.

MS. CAREY: 29? I'm shocked.

MR. CAMERON: And if we need to clarify that, we will.

MS. CAREY: Times 250.

MR. CAMERON: Go on, Corinne.

MS. CAREY: Okay. One of the questions that came up at the July 1st meeting, which happened to be the Friday of the Fourth of July weekend, so it was something of a chore to manage to be here, but, it came up the question of advocacy. I really can't truly say that I feel NRC or the company representatives are truly advocates of the public.

And, I understand there are some areas that do have such a commission or an individual, I think Wisconsin has something close to that, if anybody can correct me. I understand that Nevada has something in that line, where the public truly feels that that, that they are truly represented.

And, I just don't think that that's our feeling here. Even though you're nice guys, I don't, I'm not questioning that you're nice guys. I'm just feeling that the system needs more to be viable.

Okay, so this is projected for, to 2031 and then what? Is there going to be another re-doing. Or, is that going to be a de-commissioning and then how do you handle the jobs problem, and so on and so on.

I haven't seen any plans on that, but that should be part of a re-licensing project, you know, how do we get out of that.

Like, how do we get out of Iraq, et cetera.

Let's see. Oh, one of things that I think most of us haven't recognized is that when nuclear power came in, the whole electric thing, energy thing became centralized. The little dam up at Newago, and the other one at Big Rapids.

All those little energy producers for their area, even though they had a few environmental problems where they silt filled in and it may have destroyed some of the environment, but, still some of those things could have been handled, but, how they're out. They're gone.

So, the de-centralization is what needs to re-occur. And, it might even be that we will have solar power, solar panels on our buildings, our church roofs, in the places where it's possible. And, more and more, we're finding it is.

Oh, the thing about fines. It really was a blow to me when I began to understand that fines are considered a cost of doing business. They are not specific to anybody who might be responsible.

I understand that now in Italy, there is a company that has had some, and I'm sorry, things are getting a little weak here and there. The plant, a very serious plant problem in Italy where the individual managers were charged with the crime and I understand that 25 of the 28 charged are now in jail. That's not a fine, another fine that comes out of our pockets. And, I know you're nice guys.

Oh, the hot spots issue. I would like to see a map of the hot spots in Lake Michigan. Is there one somewhere near our plant

here. What has our plant fed into it? When I talk hot spots, around Chernobyl the fallout settled down and the winds came along and picked it up and moved it someplace else. And the winds came along and picked it up and moved it someplace else. Creating hot spots in very unexpected locations.

The same thing has happened to Lake Michigan. Ever since the fallout time stopped in 1963 from the above ground testing, which laid down layers of sediments of radioactivity, those have done the same thing in storm time, November. And, it gets it up and it settles down. It gets up and it settles down.

And, I feel that a map of that needs to be part of this re-licensing process. That's environmental. And, how much of it would our plant here add to it?

One more comment about clean. Nuclear power is clean in that you cannot taste, or you cannot smell it. You can't see it, you can't write your name on it on the windshield of the car.

The particulates are so very very fine, that when they use it in depleted uranium ammunition, et cetera, which is involved quite directly with the whole power situation, that the very very fine particulate is very incendiary, and anytime it's, a metal piercing ammunition is, I understand is depleted uranium whether it's done by plane or some ground firing or whatever.

But, it's very very fine and it burns and it invades the environment. Now, how much of that very fine particulate is also part of the picture of a nuclear power plant? How much does it invade the

environment, in comparison to the heavy particulates of fossil fuels.

Oh, and clean, I mentioned this morning that I understand that yes, you can taste a radioactive exposure. It gives a metallic taste on the tongue, you taste a penny. So, I'm not a scientist, obviously, but I am very concerned that we need all forms of science and the emotion that comes from human beings in order to take good care of my five grandkids.

MR. CAMERON: Thank you very much. Thank you, Corinne. We're going to go to Mr. Karch right now, and then we're going to hear from Kevin Kamps. And, it's Gary? Gary Karch?

MR. KARCH: Yes, thank you very much.

MR. CAMERON: You're welcome.

MR. KARCH: My comments are going to be a little mixture of and edited from what I originally was going to say because some people have already covered some subjects and then I come up with other things to say as the proceedings have occurred.

First of all, I was very disturbed by the fact that with all the NRC professionals and the Palisades employees here, no one right off the top of their head could say how many dry casks we have here? And we had to have Kevin Kamps, the Nuclear Information Resource Service and anti-nuclear watchdog group come up with the number 29?

Everybody was scratching their head and nobody knew. That's the kind of lack of inattention, of lack of attention it seems is that we're being afforded here. They don't even know how many dry casks are sitting on the shores of Lake Michigan.

As for the tax base, and the loss of tax base, that we had members of the Chambers of Commerce and Covert Township say is important, that every dollar generated is circulated seven times or what have you. Coming here, I drove through Covert.

First time I drove through covert was about 24 years ago. And, I've driven through it since particularly coming up here when, being involved in the Palisades plant before they even put out one dry cask. I was involved in some of the organizing against the dry cask.

And, I don't see where Covert has, you know, benefitted anywhere. Maybe, you know, South Haven has, but, talk about environmental justice. Covert looks just as deprived as it has ever been.

Concerning the power generated from the plant and how much it provides in the state of Michigan and all of that spin. The Cook nuclear plant was down over two and half years, and they have two reactors there each of, each one, I believe is 1100 megawatts and we never had any power outage due to lack of generation capacity there.

And, the Palisades plant of 800 megawatts isn't necessary at all. I believe this is a false creation of needed electrical generation capacity that we're seeing here.

And, thank you, Corinne for bringing up the concern about the waste. This is one thing that I believe in the proceedings here we being very, you know, professional and calm and everything, but, the professionals in the nuclear industry are being very

capricious with the fact that, you know, they're generating a lethal waste here.

How much more waste will be generated in 24 more years. It is my understanding that if Yucca Mountain were to open tomorrow, which it's not going to happen because they're still having even more problems there, it already is not capable of handling all the waste that is already generated and sitting in storage across the United States. It already could not hold everything that's generated.

So, and also I remember reading not too long ago in the Herald Palladium that there was an article about a new transportable dry cask that Palisades will be using from now on. And that's all well and good, but, where is that waste going to go if there is no place for it.

This is the most serious environmental, blatant problem that needs to be addressed. The electricity is fleeting. It's created and it's gone, it's used. What's left is the waste. So, the truth of the matter here is the real product is lethal nuclear waste. Electricity is just a by-product. The waste is what is still here and will be here for hundreds of thousands of years and it is lethal and it is deadly.

And then, we have to go through the process of finding how to keep it safe. This industry is holding us psychologically hostage. They're creating a waste, and then patting us on the head, and saying, oh, don't worry, we know what to do with it, it'll be safe, blah, blah, blah.

I say, our psychological body burden, we've had enough psychological body burden in Michigan, here, especially in southwestern Michigan. We've got Cook and it's probably a done deal that they're going to get another 20 years. But, we don't need this little Palisades with all its history of safety infractions in the hundreds that made headlines over the years. We don't need this anymore. And, with that, that's the end of my comments. Thank you.

MR. CAMERON: Thank you, Mr. Karch. And, Kevin, Kevin Kamps.

MR. KAMPS: My name is Kevin Kamps from Nuclear Information Resource Service. And, I spoke earlier, too, so I'll try to address other issues than I said earlier today.

I wanted to talk about the screening criteria that were mentioned earlier by Bob from the NRC. And, Mr. Keegan mentioned five reevaluations of the embrittlement of the reactor vessel at Palisades. And we see those as relaxations.

And that's why in our contentions against the 20 year license extension we will go into great detail on how dangerous this situation is. Probably the most embrittled reactor in the United States. And, it's really taking a big gamble to try to operate this dangerous facility for another 20 years.

And, I have a big question about Consumers Energy's promise in previous years to anneal the reactor vessel. That was a promise made publicly. I saw an article from years ago in the Kalamazoo Gazette where Consumers indicated that it was going to

anneal the vessel.

And so, we have a question as to why that never happened. And, I would hope in the environmental review that that would be addressed. What changed? Why was that promise not kept?

And, something also that Mr. Keegan mentioned was the environmental review has to look at the socio-economic impact of a full scale catastrophe at Palisades. Tourism was mentioned. I would also specifically request that casualties be looked at. The number of deaths, the number of injuries, the number of latent cancer fatalities. The number of genetic damaged children in future generations.

I heard from Consumers especially that this plant is safe. And so, my question is Consumers willing to voluntarily give up its Price Anderson Act protection. If this facility is so safe, then why do you need liability protection provided by the U.S. taxpayers? Simply get rid of that, and I'll believe you a little bit more.

Because then the liability will be where it belongs which is with the owner and the operator of the nuclear power plant. And, of course, you'll be a lot more careful if that $500 billion bill for damages that's possible was on your books instead of the public's.

I'd also like to point out that this entire licensing or license extension proceeding is premature because the Nuclear Regulatory Commission is reevaluating its pressurized thermal shock rule. And this revision is not complete. So, this proceeding should be postponed until after that proceeding is complete.

And, I need clarification from the NRC as to whether the old rule applies at Palisades or the new rule is going to apply at Palisades. And, for that reason alone, this entire proceeding should be postponed. That's another reason for the deadlines to be extended.

And, I would like to talk about waste. That's come up a lot. Both pads at Palisades are in violation of NRC earthquake regulations. So, therefore, Palisades has no safe place to store high level radioactive waste that meets NRC regulations. The pool is full. The pads are in violation of regulations.

In addition, it's been brought up that Yucca Mountain is also highly in doubt and it's also an environmental justice violation itself because it's Western Shoshonee Indian land in Nevada. And they don't want it. It's also an earthquake zone that leaks into the underlying drinking water supply.

I'd also like to point out that another proposed dump site at the Skull Valley Goshutes Indian Reservation in Utah is an environmental justice violation. So, these are the two leading long-term solutions, so called, for this nuclear waste problem. Two Indian lands out west.

And, I'd like to talk about the NRC's nuclear waste confidence decision. This is a document that NRC first put out in 1984 and has revised a number of times where we cannot bring up nuclear waste as an issue during licensing proceedings like this, because it's covered. They say we have confidence that by the year 2025, at least one dump, burial site will be open in the United States.

Nevada has challenged that, because the only site under consideration is Yucca. And NRC is supposed to be an unbiased objective judge of the Yucca site, whether it should be licensed or not, but, of course, if NRC rules against Yucca, they prove themselves wrong. There will not be burial site by 2025. So, that nuclear waste confidence decision is very shaky and needs to be withdrawn and waste needs to be a part of this proceeding.

And, you mentioned earlier, I think you mentioned it tonight, too, that environmental justice is something you consider in this environmental review. So, certainly the environmental justice violations at Yucca Mountain and Skull Valley, Utah need to be considered.

I'd like to say a little bit about alternatives. I thought it was telling when Bob spoke that renewables were mentioned last and very briefly. And, I think Maynard, and earlier in the day, Barb Geisler pointed out the reality of renewables like wind and solar. They're ready to go. They're viable. And I would add in there efficiency and conservation as alternatives to nuclear power.

And, something that Mr. Keegan brought up, at a 44 percent rate of operation at Palisades because of all the breakdowns and violations over the years, how does that compare to the wind not blowing? I mean, the last time I checked the sun comes up every day. So, that's pretty reliable source of energy, I would say.

And, I would like to point out in terms of renewables, the job potential. Tremendous job potential. A lot was said about

jobs. There's a recent report that the NRC reviewers need to include in this review which is by Amory Lovens of the Rocky Mountain Institute, where he points out that renewables already are leaving nuclear power in the dust in terms of marketplace reality.

And, another report by the U.S. Public Research Group shows that hundreds of thousands of jobs could be created through renewables like wind and solar and efficiency measures. And, that could, the Kyoto, the Kyoto global warming quotas could be met in the United States with nuclear power being rolled back 50 percent, we could still meet the Kyoto standards in this country. And so, nuclear power is not the solution to global warming. It would cost too much. It would take too long to build new reactors.

In terms of emergency response, I've heard earlier today and tonight a lot of thanks from local officials for Consumers paying for emergency response training and equipping. And so, in the environmental review, I would like to ask that the NRC look at the preparedness of emergency responders in surrounding counties in terms of how ready they are for a major radiation release. How many isolation units are there at local hospitals for radiation victims, who themselves being contaminated would be a threat to the medical personnel helping them.

And, the last thing that I'll bring up is, I have to choose here. I would again reemphasize the importance of extending the deadlines, because we're five years out right now from the year 2011 when this license expires.

So, the question is, what's the rush? Why are these deadlines so rushed? And, also, it's a 20 year license extension. So, we should have more than just 60 days to comment on 20 years of impacts. But, of course, as Mr. Karch said, it's a lot longer than 20 years. The waste is going to be here forever. Thank you very much.

MR. CAMERON: Thank you, Kevin. And, thank all of you for your comments tonight. Is there anybody who we haven't heard from tonight that wants to say anything else before we close? We did get to hear from Marilyn, which is good. Do you want to say, do you want to give us some more?

MR. RICHARDS: No. I got pretty much --

MR. CAMERON: All right, let me just before we get really informal here. It seems like you have something to tell us, right? That you want to put on the record? Is that correct?

MR. RICHARDS: I guess, yes.

MR. CAMERON: Okay, well, than we're going to hear that. And then, we're going to go to Mr. Keegan for a brief, okay? Why don't we hear from you and then we'll go to Mr. Keegan. And then, I'm going to ask Rani to close for us.

MR. RICHARDS: Yeah, Ken Richards.

MR. CAMERON: Ken Richards.

MR. RICHARDS: And, I guess I've been living here in South Haven most of my life. And, watching this issue, I worked on the power plants, back in, starting back in the 70's when it was Cook.

And, I've just been hearing all sort of things. And, I

heard tonight this gentleman over hear was explaining, the glasses right down here. I didn't catch his name.

PARTICIPANT: He's Bob Vincent.

MR. RICHARDS: Bob, yeah. When I hear these rosey pictures painted of a reactor vessel, when, you know, there's another way to put that. We're taking old fuel assemblies from back in the 70's and whatnot, stainless steel ones and sticking them up against the reactor wall because we're worried about the embrittlement, we're worried fractured reactor wall here.

We don't, we hope that these things will sop up the radiation, help it from getting out. That's another way of saying what you just said and, I keep hearing this stuff just over time from so many different sources within the nuclear industry. And even time to time from the NRC from the, just explaining things away like I'm sitting here watching TV advertising every night or something.

You know, I know I'm being sold a bill of goods here. I know we're got this 40 year old reactor out there that we're going to just, we're going to run it for another 20 years. I'm nervous about that. It gives me great cause for concern, and I just don't think it's a good idea.

I wish there was another brand new nuclear power plant to take over, like we were all thinking back in the 70's. Three Mile Island happened, none of that's ever happened.

You know, it's just there are new technologies coming along all the time and if we just put half the investment that we put

into these old dead industries, that are dying like the nuclear industry. You know, we could have new stuff here that doesn't pollute.

We can turn this greenhouse effect around. We can fix these problems, but, right now, we want, most of our resources are going to what's making the right people a lot of money. And, they're just trapped there. And, we're just getting this continual PR bullshit that that's all going to be okay.

And, I just don't want South Haven, I don't want my home town to the place where this really goes wrong, when the world gets taught a lesson it'll never forget, like they had to do over in Russia. Not here.

MR. CAMERON: Thank you very much, Ken. Michael? Briefly?

MR. KEEGAN: Briefly. To honor your request that new issues be brought forward, regarding the dry casks, we intervened, Don't Waste Michigan intervened in 1993. We went to district court, U.S. District Court on May 4th, '93 announcing that we wished to intervene. The court set a date of May 6th for us to intervene.

On May 5th, Consumers Power generated a document unloading procedures for the casks. When we went to court the next day, the judge said there is no irreversible harm here because they have this unloading procedure that this can be undone.

Lo and behold, this can't be undone. Cask number four has not been unloaded. It was promised to be unloaded. These casks,

no unloading has occurred industry-wide. There is a potential for a huge steam, radioactive steam release if this was unloaded. It would have to be under water. It's a complex issue, but, this is unresolved.

But, basically, Consumers Power and the NRC did perjure themselves in federal court on May 5th, a document, it was May 6th, I think we presented that. And, because of that, the judge would not rule for a temporary restraining order because it was perceived to be reversible. Lo and behold, years later, Mary Sinclair, Dr. Sinclair, came across documentation showing that this cannot be undone.

What about these 29 casks that are loaded? And, it's my understanding they weigh 132 tons each. This is a defacto high level of a nuclear waste dump on the shore of Lake Michigan. And there are no plans to get it out. And, you're going to make more, give them a 20 year extension to make more of this. I have a problem with that.

I also have a problem with them, Consumers having a fire where trailers of documentation were burnt on the casks, the documentation about the cask was burnt in a fire that was suspect and is still under, I don't know if it's still under investigation, but, I don't believe arson was ever ruled out.

A caveat to that was that Consumers Power did provide the local fire department about five, six years previous with about $800,000 piece of fire equipment. So, if it looks like a duck, walks like a duck, smells like a duck. It's a duck. And, this is a rotten eggs here. So, don't bring us 20 more years of this.

MR. CAMERON: Okay, thank you. I'm going to hear from people that we haven't heard from. Okay. I want to get to Mr. Rendell from Covert Township.

MR. RENDELL: Thank you. I really didn't come prepared to speak, but, I wanted to correct, Gary Karch said Covert hasn't benefitted from this power plant. That's very far from the truth.

We have a wonderful fire department, we have a full time police department. We have water throughout the township. Without Consumers help with this, that wouldn't happen. Covert is very much in favor of this renewal.

MR. CAMERON: Okay. Thank you. Thank you very much, Mr. Rendell. And, Kevin, really short, please.

MR. KEEGAN: Yeah, I apologize. I forgot an important point. If Yucca Mountain were to open in Nevada, there's enough waste in the United States by the year 2010 to completely fill it to its legal capacity. It won't be open by 2010, if ever.

And so, I just point out the irony of Consumers license expiring in the year 2011 and if Yucca were to open, it possibly could take all the waste generated at Palisades up to that point. But, everything made after that point, after the year 2010, is excess to Yucca. And, the second repository in the United States by law would have to be located in the eastern part of the country. Perhaps Michigan? Who knows. Wisconsin?

So, I would just point that out. Let's not make 20 more years, because there certainly is no place for that. There's no place

for the first 40 years of waste.

MR. CAMERON: All right. Thank you Kevin and thank all of you for the comments and coming out tonight. And, we're going to go to Rani. Rani?

MS. FRANOVICH: Thank you, Chip. Just want to again, thank you all for coming and talking with us tonight. This is very important to us to have your participation in the process. In the back of the room, we have a lot of literature that you're welcome to take and read.

We also have some feedback forms that we'd like you to fill out and leave here or mail in to us. The postage is prepaid. This will allow us to understand how we might be able to conduct the meetings in the future to better serve your needs, get some feedback on how well we're receiving your comments and giving you an opportunity to talk with us.

If you have any comments on the scope of the environmental impact statement that you think of after the meeting, we're accepting these comments through August 22nd. As Bob indicated, if they're a couple of days late, we'll still try to consider them. But we can't guarantee that a few weeks late won't be too late.

Finally, the NRC staff and some contractors will be available to talk with you one on one after the meeting. So, if there are any other questions or concerns you want to talk with us about, just come and see one of us and we'd be happy to talk with you for awhile. Thank you very much, again, for coming to the meeting.

(Whereupon, the meeting was adjourned at 9:29 p.m.)