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NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING TO DISCUSS

DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR

PALISADES NUCLEAR PLANT

LICENSE RENEWAL APPLICATION

+ + + + +

WEDNESDAY

APRIL 5, 2006

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SOUTH HAVEN, MICHIGAN

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The above-entitled matter commenced pursuant to Notice before Chip F. Cameron, NRC Special Counsel.

PRESENT:

Chip F. Cameron, Special Counsel for Public Liaison

NRC STAFF:

Rani Franovich, Chief Environmental Review Branch

Bo Pham, Project Manager

Robert Palla, Senior Reactor Engineer

Bob Schaaf, Senior Project Manager

John Ellegood, Senior Resident Inspector

Viktoria Mitlyng, Public Affairs Officer

Dr. David Miller, Argonne National Lab

I N D E X

P R O C E E D I N G S

(1:35 P.M.)

MR. CAMERON: Good afternoon everyone. My name is Chip Cameron, and I'm the Special Counsel for Public Liaison at the Nuclear Regulatory Commission, the NRC. And it's my pleasure to serve as your facilitator this afternoon for this public meeting. And my responsibility on that score is to try to make sure that all of you have a productive meeting this afternoon.

Our subject today is the environmental review that the NRC has conducted as part of its evaluation of an application that we received from the Nuclear Management Company to renew the operating license for the Palisades Nuclear Plant. And I just want to go through a few things on meeting process, so that you understand how we're going to work today before we get to the substance of today's discussions. And I want to talk about format, some very simple ground rules that will help us to have a productive meeting, and to introduce the NRC speakers who are going to be talking to you today.

Let me thank all of you for coming out to be with us this afternoon to help the NRC with its important responsibility in terms of evaluating this license application.

In terms of the format for the meeting, it's basically a two-part format. The first part is for the NRC to give all of you information, background on not only what we look at when we review an application to renew a license, but in this case, what are the findings in the Draft Environmental Impact Statement that we prepared on this license application. And we're going to give you some information. We're going to go out to you during those presentations to answer any questions that you might have.

The second part of the meeting is for us to have an opportunity to listen to any concerns or comments, advice, recommendations that you have on license renewal and possibly on the specifics in the Draft Environmental Impact Statement. I know that some of you have had an opportunity to look at that, so we'll look forward to those comments.

And this is a Draft Environmental Impact Statement that we're talking about today. And the reason it is a draft is that it won't be finalized until we have an opportunity to evaluate the comments that we hear today. We're also asking, and the staff will tell you more about this, for written comments, okay? And we'll consider your comments from today's

meeting, and the written comments when we begin finalizing the Draft Environmental Impact Statement.

In terms of ground rules, they're real simple. When we go out for questions from you, just signal me if you have a question and I'll bring this little microphone out to you and if you could just introduce yourself to us, and any affiliation that, any group that you're with that's applicable and we'll try to answer your questions as best as we can.

I would ask that only one person speak at a time. Two reasons, the most important one is so that we can give our full attention to whomever has the floor at the moment. And secondly, we are taking a transcript of the meeting. Mr. Ron LeGrand is here. He's our stenographer. The record of the meeting that is on the transcript will be available to all of you. If you want to see what happens today, we have another meeting tonight. We'll be taking a transcript of that. But one person at a time helps Mr. LeGrand to know who is talking so that we can get a clean transcript.

I would ask you to be to the point in your questions, because we want to make sure that we can get to everybody who wants to talk today. So try to be brief on that aspect. And during the question

period, it is the opportunity to ask questions. And I know questions can often be attached to a comment that you might want to make to introduce that, but as much as you can, if you could keep the questions to the question period. And if you have comments, let's get that out when we go to comments, the second part of the meeting.

Now in terms of those comments, we do have yellow cards out there for you to sign up if you want to make a comment. That doesn't mean that if the urge strikes you when we're in the comment period that you just can't tell me, I'd like to make a comment. But it allows us to know how many people want to, want to speak.

And I would ask you, this is a guideline, is to try to keep your comments into the five to seven minute range. And if we're going way outside that, I may ask you to summarize. If you have a written statement, we can attach that to the transcript. If you have a lot more to say, then you can submit written comments and amplify on your comments tonight. And usually I've found that five minutes or so is enough for people to summarize their main points. And it accomplishes two important objectives. One is it alerts the NRC staff to issues of concern that they

can start thinking about immediately, including talking to you after the meeting about your particular comment.

Second thing that it accomplishes, is it tells the other people in the audience what the concerns are that people might have, or recommendations, advice about the Draft Environmental Impact Statement.

So, let me introduce the staff to you, who's going to be talking to you. First, we have Ms. Rani Franovich who's right here. And Rani is the Chief of the Environmental Section in our license renewal program. And Rani and her staff are responsible for doing the environmental reviews on each of these license renewal applications.

And to give you little bit of her background, she's been with the NRC for about 15 years. She was a Project Manager on a safety evaluation, as opposed to the environmental evaluation on license renewal applications. She's been an NRC Resident Inspector at the Catawba Nuclear Power Plant. And Rani will be introducing the residents that are at Palisades.

But, the NRC Resident Inspectors are our eyes and ears, so to speak, at the particular plant.

They live in the community to make sure that NRC regulations are complied with. But Rani was a Resident Inspector. She also was the Enforcement Coordinator for our reactor program. And that's, has to do with any enforcement actions that are taken for non-compliance with NRC Regulations. She has a bachelor's degree in Psychology from Virginia Tech, and also a master's in Industrial & Systems Engineering. And she's going to give you a broad overview of --

Then we're going to go to one of Rani's staff, Mr. Bo Pham, who's right here. And Bo is the Project Manager for the preparation of the environmental review on the Palisades license renewal application. And he's going to talk to you about that process. And Bo's been with the NRC for about four years. He was a Project Manager for the NRC for the San Onofre reactor in California. He comes to us from the Nuclear Navy. He was an officer on submarine, nuclear navy. And he has a bachelor's degree in Mechanical Engineering from the Naval Academy in Annapolis, Maryland.

After those two presentations, which are on the process, we'll see if you have any questions. And then we're going to proceed to the substance of

the environmental review and these are the information and the findings in the Draft Environmental Impact Statement.

And we have Dr. Dave Miller, who's right here. Dave is the Team Leader of our group of scientists and expertise, experts who prepared the Environmental Impact Statement, with the NRC, for the NRC staff, with the NRC staff. And he led that team of scientists and he'll be talking to you about what they found. And Dave is from Argonne National Lab outside of Chicago, and he's an Environmental Engineer and he has a PhD in Environmental Engineering from Johns Hopkins University. He's also a Professional Engineer, certified, and he's also a Registered Geologist.

And after Dave's presentation, we'll go to you for questions again. And then we have a real specific part of the Environmental Impact statement, the draft EIS, to talk to you about. And that's something called SAMA, Severe Accident Mitigation Alternatives. And we have one of our experts from the NRC here to talk to you about that. That's Mr. Bob Palla. And Bob has been with the Agency for 25 years, and he's an expert on something called Probabilistic Risk Assessment and Severe Accident Analysis. And

I'll tell you a little bit about that. He has a bachelor's and a master's in Mechanical Engineering from the University of Maryland. And we'll go again for questions.

And then we're going to have Bo come back up, Bo Pham, to just tell you how you submit comments, where, whatever. And then we'll get into the second part of the meeting. We're going to do the presentations now and I would just ask you to be patient. Let the presenters get through their presentation. Make notes of questions that you have, and then we'll come back and get your questions, just to insure that they can, we can get all the material out to you today. And Rani, you're going to talk to us now. Rani Franovich.

MS. FRANOVICH: Thank you Chip. And thank you all for being here. You know, you're participation in our process is very important to us.

MALE VOICE: Can't hear very well.

MS. FRANOVICH: Can you hear better now? Is that better? Can everybody hear me?

FEMALE VOICE: You have to hear your own echo. Then you know we're hearing.

MS. FRANOVICH: Is this better? How about that? Okay. Thank you. Again, I want to thank you

all for coming to our meeting. Your participation is very important to our process. I hope the information we provide today in this meeting will help you to understand the process we're going through, what we've done so far, and the role that you can play in helping us make sure that our final Environmental Impact Statement for Palisade's license renewal is accurate.

I'd like to start off briefly by going over the agenda and the purpose of today's meeting. We'll explain the NRC's license renewal process for nuclear power plants with emphasis on the Environmental Impact Analysis and review process. And then we're going to present the preliminary findings of our environmental review which assesses the impacts associated with extending operation of the Palisades Nuclear Facility for an additional 20 years.

Then really the most important part of today's meeting is for us to receive any comments that you may have on our Draft Environmental Impact Statement. We also will give you some information about the schedule for the balance of the Staff's review and let you know how you can submit comments after today's meeting.

At the conclusion of the Staff's presentation, we'll be happy to answer any questions

you may have. However, I must ask you to limit your participation to questions only and hold your comments until the appropriate time in this meeting when we ask you to provide those comments. Once all questions are answered, we can begin to receive those comments that you have on our Draft Environmental Impact Statement.

Before I get into a discussion of the license renewal process, I'd like to talk a minute 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 issue licenses.

AUDIENCE MEMBER: Excuse me. Can I ask, how many people are hearing clearly? Some of us are white haired and it makes a difference.

AUDIENCE MEMBER: It's hard to hear you.

AUDIENCE MEMBER: Yes. It's really, you're not as loud as he was. You have to be practically eating the microphone.

MS. FRANOVICH: Well, I will try my best to make sure everybody can hear me.

MR. CAMERON: Was that, was that better, what she just said right then.

AUDIENCE MEMBER: It's not that much better. How many people are having some problems hearing?

AUDIENCE MEMBER: Lean into the mike.

AUDIENCE MEMBER: Your mike was better. You're voice was better.

MR. CAMERON: Okay. Let's give it a, Rani, try to really --

AUDIENCE MEMBER: Eat it.

MR. CAMERON: -- get in there and let's see if that works. You've got to hear, so we'll solve the problem one way or the other. So, let's go, Rani, and try it. Give it another try.

MS. FRANOVICH: Okay. The Atomic Energy Act is the legislation that authorizes the NRC to issue licenses. The Atomic Energy Act also provides for a 40 year term for a license for power reactors. This 40 year term is based primarily on economic considerations and anti-trust factors, not on safety limitations of the plant. The Atomic Energy Act also authorizes the NRC to regulate civilian use of nuclear materials in the United States.

In exercising that authority, the NRC's mission is three-fold; to insure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment. The NRC accomplishes its mission through a combination of regulatory programs and processes, such as

conducting inspections, issuing enforcement actions, assessing licensee performance, and evaluating operating experience for nuclear power plants across this country and internationally. The regulations that the NRC enforces are contained in Title 10 of the Code of Federal Regulations, which is commonly referred to as 10CFR.

As I've mentioned, the Atomic Energy Act provides for a 40 year license term for power reactors. Our regulations also include provisions for license renewal, and extending plant operation for up to an additional 20 years. For Palisades, the license will expire in 2011.

Palisades is owned by Consumer's Energy, a subsidiary of CMS Energy Corporation and licensed to operate by Nuclear Management Company LLC. Nuclear Management Company has requested license renewal for the Palisades plant. As part of the NRC's review of that license renewal application, we have performed an environmental review to look at the impact of an additional 20 years of operation on the environment. We held a meeting here in July of last year to seek your input regarding the scope of the Staff's view and items we needed to evaluate. We indicated at that earlier scoping meeting that we would return to South

Haven to present the preliminary results of our Environmental Impact Statement. That is the purpose of today's meeting.

The NRC's license renewal review is similar to the on, the original licensing process in that it involves two parts; a safety review and an environmental review. This slide really gives a big picture of the overall license renewal process which involves those two parallel paths. I'm going to briefly describe both the safety review process and the environmental review process, starting with the safety review.

You might ask, what does the safety review consider? For license renewal, the safety review focuses on aging management of systems, structures, and components that are important to safety as determined by the License Renewal Scoping Criteria contained in 10CFR, part 54. The license renewal safety review does not assess current operational issues, such as security, emergency planning and safety performance. The NRC monitors and provides regulatory oversight of these issues on an ongoing basis under the current operating license. Because the NRC is dealing with these current operating issues on a continuing basis, we do not reevaluate them in

license renewal.

As I have mentioned, the license renewal safety review focuses on plant aging, and the programs that the licensee has already implemented or plans to implement to manage the effects of aging. Let me introduce Juan Ayala. He is the Safety Project Manager. Juan, thank you. He's in charge of the Staff safety review. The safety review in our, excuse me, the safety review involves the NRC's staff's evaluation of technical information that is contained in the license renewal application. This is referred to as the Staff's safety evaluation.

The NRC Staff also conducts audits as part of its safety evaluation. There is a team of about 30 NRC technical reviewers and contractors who are conducting the safety evaluation at this time. The safety review also includes plant inspections. The inspections are conducted by a team of inspectors from both headquarters and the region 3 office outside of Chicago. A representative of our inspection program is here today. John Ellegood is the Senior Resident Inspector at Palisades. Thank you, John.

The Staff documents the results of its safety review in a Safety Evaluation Report. That report is then independently reviewed by the Advisory

Committee on Reactor Safeguards or the ACRS. The ACRS is a group of nationally recognized technical experts that serves the consulting body to the NRC, to the Commission. They review each license renewal application and the Safety Evaluation Report. They form their own conclusions and recommendations on the requested action, and they report those conclusions and recommendations directly to the Commission.

This slide illustrates how these various activities make up the safety review process. I'd like to point out that the hexagons on the slide indicate opportunities for public participation. The, mechanical failure. It's the yellow hexagons on the slide. Those represent opportunities for public participation in the safety review process.

The second part of the review process involves an environmental review. The environmental review which Bo will discuss in a few minutes in more detail, evaluates the impacts of license renewal on a number of areas, including ecology, hydrology, cultural resources and socioeconomic issues, among others. The environmental review is all scoping activities, and the development of a draft supplement to the Generic Environmental Impact Statement for License Renewal of nuclear plants, also referred to as

the GEIS. The GEIS forms the basis for plant specific environmental reviews.

The Draft Environmental Impact Statement for Palisades has been published for comment. And we're here today to briefly discuss the results and to receive your comments. The Draft Environmental Impact Statement for Palisades, I'm sorry. In October of this year, we will be issuing the final version of the Staff's Environmental Impact Statement, which will document how the Staff addresses the comments that we receive here today and in the future, on the draft EIS.

So, the final Agency decision on whether or not to issue a renewed operating license depends on several inputs; inspection reports and a confirmatory letter from the Region 3 Administrator, conclusions and recommendations of the ACRS, which are documented in a letter to the Commission, the Safety Evaluation Report which documents the results of the Staff's safety review, and the final Environmental Impact Statement, which documents the results of the Staff's environmental review.

Again, the hexagons on the slide indicate opportunities for public participation. The first opportunity was during the scoping period, and the

meeting back in July of 2005. Many of you may have attended that meeting. This meeting on the Draft Environmental Impact Statement is another opportunity. No contentions have been admitted to a hearing, so that does not apply here. Appeals are before the Commission at this time.

That concludes my presentation on the NRC and general overview of the license renewal process. Now I'd like to turn things over to Bo, who will discuss more details about our environmental review and our preliminary results.

MR. PHAM: Thank you Rani.

MS. FRANOVICH: Sure.

MR. PHAM: Thank you. Good afternoon, and thank you everyone again for coming today. Can everyone hear me fine like this?

AUDIENCE MEMBER: No. You've got to be real close so you can hear your own echo.

MR. PHAM: Okay. I'll try to, I'll try to project a little bit more. Good afternoon. My name is, as Rani and Chip have mentioned before, my name is Bo Pham. I am an Environmental Project Manager for the NRC. My responsibility is basically to coordinate the activities of the NRC Staff and the various environmental experts that we have in the National

Laboratories to develop the Environmental Impact Statement associated with the license renewal proposal for Palisades Nuclear Plant. So, it was on the wrong slide. Here we go.

The National Environmental Policy Act of 1969 requires that Federal agencies like the NRC, follow a systematic approach in evaluating potential environmental impacts associated with certain actions. We're required to consider the impacts of the proposed action and also any mitigation, mitigation of those impacts that we consider to be significant. Alternatives to the proposed action, including taking no action of the applicant's request, are also to be considered.

The National Environmental Policy Act and our Environmental Impact Statement are disclosure tools. They're specifically structured to involve public participation, and this meeting that we're having here today facilitates the public participation. So we are here today to collect your public comments on the, on our Draft Environmental Statement, and these comments will be included in the final Environmental Impact Statement for Palisades.

But now I'd like to provide a little bit more information in detail about the development of

the license renewal Environmental Impact Statement. In the mid 1990's, the NRC was faced with the prospect of having to prepare Environmental Impact Statement for the majority of, for the license renewal of the majority of the operating nuclear plants in the U.S. In order to do so, the NRC decided that it would tackle this problem in two ways.

First, we evaluated the impact of all the plants across the entire country to determine if there were impacts that were common to all operating plants. We looked at 92 separate areas and found that for 69 issues, the impacts were the same for all, for plants with similar features. The NRC called these category ones, category one issues and made the same or generic determination about the impacts in a document called the Generic Environmental Impact Statement for License Renewal, which Rani mentioned earlier, which we also refer to as the GEIS. These category one issues include things like the discharge of chlorine or biocides, thermal shock, and fish entrainment or impingement to the, for, to the environment. The Generic Environmental Impact Statement was issued by the NRC in 1996 and contains the NRC generic determinations for all 69 category one issues.

And secondly, the NRC found that it was

not able to make the same generic determination or conclusions about the remaining 23 issues. The site specific supplements were needed for 21 of these issues. We call them category two issues, and also there were two remaining issues that we referred to as not categorized. And they also needed site specific analyses. The NRC did not rule out the possibility that its generic conclusions for the category one issues may not apply in some cases, therefore a verification is done to determine if new and significant information is found that contradicts the generic conclusion, and if so the Staff would perform a site specific analysis on each of those issues.

The Palisades Supplement containing a summary of category one issues and site specific analysis for category two issues, as well as the two not categorized issues, is what we're presenting to you today. And there are copies in the back of the room if you, if you have not seen one.

This slide here shows our decision standard for the environmental review. And the standard comes straight out of our regulations under part 51.71 of the Title 10 of the Code of Federal Regulations. And I'll give you a second to read through it, but simply put, it, the standard is for us

to verify if the license renewal is acceptable from an environmental perspective.

This slide shows the important milestone dates for the, for the environmental review. The highlighted dates indicate opportunities for public involvement in the environmental review. We received the Nuclear Management Company's application requesting for the license renewal of Palisades on March 22nd of 2005. On June 27, 2005 we issued a Federal Registered Notice of Intent to prepare the Environmental Impact Statement and conduct scoping for the review. A meeting was held on July 28th, as Rani mentioned earlier, as part of the scoping process. And many of you may have attended that meeting to provide comments that were included in the Draft Impact Statement.

The comments that were given at the scoping meeting and on the scope of the review are in the Appendix A, as I mentioned. I also have copies of the Scoping Summary Report that we published as part of the scoping process in the back of the room, if you're interested in taking a look at that. The scoping period ended on August 22nd, 2005 and the Scoping Summary Report was issued on December 14th of 2005 addressing all the comments that were received

from all sources during the scoping process.

Our draft supplement to the Generic Environmental Impact Statement, otherwise known as the GEIS, as each plant comes for license renewal, we publish a plant specific supplement, and in Palisades case its supplement is supplement 27 to the GEIS. This draft supplement was published on February 14th of this year, entitled Supplement 27 of the GEIS, regarding Palisades Nuclear Plant. And here we are currently accepting public comments on the draft until May 18th. And that's the next major milestone in this process.

Today's meeting, as Chip has mentioned also, will be transcribed, and comments provided here carries the same weight as written comments provided to us. And once the comment period closes, we will develop the final Supplemental Environmental Impact Statement which we expect to be published sometime in October of this year.

And at this point, I would like to turn it over to Dr. Dave Miller of Argonne National Labs. But before that, I think we can take any questions regarding the process up to this point.

MR. CAMERON: Yes. Let's see if we have questions on the process before we get into the

substantive findings of the EIS. And we just need to make sure that we save time to get your questions on that, but any questions on the license renewal process at this point? Yes, let me get you with this microphone here.

MS. CAREY: Well, as a mother of four boys and a teacher of fourth graders, I usually talk pretty loud, but I wanted to ask you, the hour before the meeting, in other words, the pre-meeting availability of all these nice people to answer questions. Is that new in the process or has that gone on from the beginning?

MR. CAMERON: Okay, good question. Bo? The informal open house that we do, traditionally do before

the --

MR. PHAM: That has --

MR. CAMERON: -- the meeting.

MR. PHAM: Yes. Both the scoping meeting and our draft meetings we have traditionally have held one hour before and after, before the formal presentations itself as an open house.

MS. CAREY: I think my question about it is that in order to get the issue, I may have a question and issue that I really want answered, but I

want other people to hear it too because I need everybody's input. And if it's done on this private discussion before and after the meeting, it means that the other people that are hear don't get a chance to hear my very important question.

MR. CAMERON: And that's, I think, Rani would tell you, would urge you to, to also ask the question here so that everybody else can hear it. It's not, the open house is meant to give people an opportunity to informally talk to the NRC's staff, and it's not meant to foreclose any questions or comments from coming up in this session. Right, Rani?

MS. CAREY: Thank you.

MR. CAMERON: Okay. Yes, sir? And we have a question back there, but, and please introduce yourself too.

MS. CAREY: Oh, I was Corinne, oh, go ahead.

MR. CAMERON: Go ahead, sir.

MR. LOWE: Yes, this is Corinne Carey.

MR. CAMERON: Thank you.

MR. LOWE: And I'm Chester Lowe. Both from Grand Rapids, Michigan. I wanted to know what the, or whether or not there are any local residents from South Haven here that had any input or any kind

of part for the environmental review process, and what happens here in the community. In other words, are there any representatives of South Haven area, or even this area of Michigan? In the, as part of a team for part of the process of this? Also, about the socioeconomic factor. I wanted to know more about that.

MR. CAMERON: Okay. We'll, we'll hold off on the socioeconomic and go back to that after you hear Dave Miller's presentation on that. And in terms of local residents and local government being, being part of the process, I think Bo and/or Rani are going to tell you about the fact that we did have local residents who spoke at the scoping meeting and I think that Bo, and you elaborate on this, in terms of how we work with local government here in terms of the process, okay?

MR. PHAM: Yes. During the scoping process, when we had the meeting here in July 28th last year, we basically, we asked everybody that if they were interested and they registered at the meeting, and we had the address and contact information, we have been keeping everyone on our expanded mailing list. If there any correspondence that we have been sending out regarding the license

renewal issues, everyone should have been getting, so and when we published the Draft Impact Statement, we also mailed a copy to everyone on that.

Now as far as the people are showing up here today, I couldn't tell you who specifically is from the community, but that, the process carries on from here on to and that if you register, and that's one point I, I kind of wanted to follow-up onto. If you're here and you haven't registered I ask that you please do so, so that we can have your information so that we continue to keep you informed of the whole process here.

MR. CAMERON: Good, good point. And we're going to go here, and then we'll go over to you. And if apropos of Corinne's question about the informal open house, we'll be here after the meeting too if anybody wants to get more information on a point or a question to talk to the NRC staff after the formal part of the meeting is over. And, Kevin?

MR. KAMPS: My name is Kevin Kamps. I work for Nuclear Information and Resource Service, but I'm from Kalamazoo. And my question, Bo, has to do with the schedule that you went through. My question is what is the breakneck speed up there all about? I mean, back in July 28th, we requested an extension to

the scoping period and I don't even think we got an answer on that. We sure didn't get an extension, but we didn't get an answer even. And so my question is if you really want public input on this stuff, then, and I know you're going to say, well, the Commission told us to and maybe even, well, Congress told us to beyond that but, this, this breakneck speed, this sprint is just, you know, kind of, the writing's on the wall, I would have to say.

MR. CAMERON: And Bo, in terms of a couple of points as, you know, the basis for the, for the schedule, perhaps something that you might not know is what did we do with Kevin's request, which I remember, I think, from the last scoping meeting. Not that it matters that I remember, but what we did with that. Kevin, I don't know if implied in your question you're formally, or at least at this meeting, requesting that the comment period be held open. If you are, we'll want to get that on the record.

MR. KAMPS: I would like to make that request. I'd like to ask for another three months on the comment period --

MR. PHAM: Okay --

MR. KAMPS: -- for meaningful public input.

MR. PHAM: Let me --

MR. CAMERON: Okay.

MR. PHAM: Let me have Bob take on the first part of the question and whether we responded to your request. I remember hearing about that, but Bob was the, the Environmental PM at the time. And now, Bob?

MR. SCHAAF: Right. Kevin, we did respond to that request and I can get you the accession number for the letter. I thought it had been addressed, actually, to you. It may have been misdirected in responding, but we did, we did address that, that request. And I'll make a note to get that accession number for you.

MR. CAMERON: Okay. Great. That's Bob Schaaf. Thank you, Bob, and --

MR. SCHAAF: I, I, as, as far as the schedule and, and the timing and the amount of time for comments, you know, the gist of our response both for, for the scoping period and I guess it would be a similar answer to your question regarding comments on the draft, is that the Commission has, has a number of, of goals that, that we work towards, one of which is openness to the public and involving the public in our process. We also have goals regarding, you know,

efficient operation, conduct of, of the public's business.

And the Commission has determined that these time frames are reasonable time frames for balancing those, those goals that, particularly in the case of, actually in the case of the comment on the draft period. Our regulations stipulate a 45 day comment period and include opportunities for the public to request 15 day extensions. And by default, when we started the license renewal process, we, we went ahead and added on essentially two 15 day extensions to the, the, the regulatory requirement for a 45 day comment period. So there has already been some allowance for additional time, nearly double the, the required time frame for that response, for folks to provide responses.

MR. CAMERON: Okay. And we're going to go on to one last question before, and see if we can revisit these issues, but we'll go to you. Then I just want to give Kevin a follow-up.

MR. KAMPS: Well, just to respond to that. I mean, our efforts as local concerned citizens regarding this very dangerously deteriorated plant have involved the NRC licensing process, performed pro bono by us through completely volunteer efforts on a

grass roots level. And so this thing is going on at the same time as that licensing process, which we're still engaged in because we've appealed the licensing board's ruling against us. So I think the Commission's regulations are unreasonable.

MR. CAMERON: Okay. And that is on record, Kevin, as is your request. And let's go right here and then we'll go on. Yes, ma'am?

MS. ELZERMAN: My name is Mary Ann Elzerman, and I am a Physicist for the Department of Environmental Quality. And I want to assure all of you that we have had two people, two physicists, in this process of the environmental and the technical review ever since it started. And the state is very aware of what's going on and we do comment on all of the publications that come from the NRC.

MR. CAMERON: Great. Thank you State of Michigan, Department of Environmental Quality. Thank you very much. Let's, do you have a quick process question sir, before we go on? And also please introduce yourself.

MR. PICCIUCA: My name is Sebastian Picciuca, and I live in, within 50 miles of the plant. Did, you said 45 days, it's only 43 at the bottom, one of the upper ones was only 30, like 3, 25. What was

the 45 days?

MR. PHAM: It was, it's 45 days from the publishing of our Draft Environmental Impact Statement and the recognition of it by the EPA, and as published in the Federal Registered Notice. So that's the 45 days, and actually they, May 18th --

MR. PICOIUCA: So when's the 45 days?

MR. PHAM: It, it should have been from February 24th, which is the date that the EPA issued the Federal Registered Notice. So 45 days from February 24th, but actually when I'd put up the schedule, May 18th built in a little cushion just in case. We could even make the 45 days. So you actually have more than 45 days.

MR. CAMERON: Okay. Thank you. Ken, let's go to you.

MR. RICHARD: I'm Ken Richard.

MR. CAMERON: Well, Ken, what I wanted to do is, is get Dave on with his substantive findings and then we'll go to you first after he's done with that for your question. Because I think it may relate more to that, I don't know. And we do have the socioeconomic in the parking lot, so to speak too. So we didn't forget that, Chester. It is Chester, right?

MR. LOWE: Right.

MR. CAMERON: All right. Dave? Dave Miller.

MR. MILLER: Good afternoon. Can you hear me in the back all right? Okay, very good. Well, as Chip mentioned, I'm Dave Miller. I'm with Argonne National Lab, and we're out of Chicago. The NRC contracted with Argonne National Lab to provide the expertise necessary to evaluate the impacts of license renewal at Palisades. My team consists of nine members from Argonne National Lab, plus one member from Lawrence Livermore National Lab. And the expertise areas are listed here on the screen, but I'll just go through them briefly.

We provide expertise in atmospheric science, socioeconomics, archaeology, terrestrial ecology, aquatic ecology, land use, radiation protection, nuclear safety, and hydrology and regulatory compliance. Okay. For each environmental issue that's identified as, there's an impact level that's assigned. And I'll go over these impact levels. You can see them on the screen here.

For instance, small, a small impact is an effect that's not detectable or too small to destabilize or noticeably alter any important attribute of the resource under consideration.

For a moderate impact, the effect is sufficient to noticeably alter the, the resource, but not destabilize important attributes of that resource. For a large impact, the effect must be clearly noticeable and sufficient to destabilize important attributes of the resource.

I'll use a hypothetical fishery situation in Lake Michigan to illustrate how we look at these three criteria. For instance, a plant might cause a loss of adult and juvenile fish at an intake structure. If the loss is, if the loss of fish is so small that it cannot be detected in relation to the total population in Lake Michigan, the impact would be small. If losses cause the population to decline and then stabilize at a lower level, the impact would be considered moderate. If losses at the intake cause the fish population to decline to a point where it can't be stabilized and continually declines, then the impact would be large.

Now this goes to the subject of information gathering. My team, when we evaluated the impacts from continued operations at Palisades, we considered information from a wide variety of sources. We considered what the licensee had to say in their environmental report. We conducted a site audit

during which time we toured the site, we interviewed plant personnel, we reviewed documentation of the plant operations, and we also, over the course of the evaluation, have talked to Federal, State, local officials, as well as local service agencies. And we considered all of the comments received from the public during the scoping period, as previously mentioned. These comments are actually listed in Appendix A of the document that's available today, along with the responses that NRC, along with NRC's responses.

The body of this information collected from these various sources, forms the basis of the analysis and preliminary conclusions in this Palisades supplement. The central analyses in the supplement are presented in Chapters two, four, five and eight of the supplement.

In Chapter two, we discuss the plant, its operation, and the environment around the plant. In Chapter four, we looked at the environmental impacts of routine operations during the 20 year license renewal term. The team looked at the following issues, and on this slide it's everything but the very bottom one which we looked at in Chapter five. So in Chapter four, we looked at the cooling system, the

transmission lines, radiological issues, socioeconomic issues, ground water use and quality, and threatened or endangered species. Chapter five, as I said, contains the assessment of accidents.

At this point, I'd like to make a distinction. Environmental impacts from the, from routine day-to-day operations of the Palisades plant for another 20 years are considered separately from the impact that could result from potential accidents. That is, potential accidents during the license renewal term. I'll discuss the impacts from routine operations. Mr. Palla will discuss impacts from accidents, and he'll follow me.

Chapter eight then describes the alternatives to the proposed license renewal, and the environmental impacts associated with those proposed alternatives. Each of these issue areas are discussed in detail in the supplement. And now I'm going to just go through the highlights of some of these.

For cooling systems, for the cooling system, there are no category two issues related to the close cycle cooling system operation at the Palisades Nuclear Plant. In other words, no site specific issues. They were category one. Preliminary findings are there is no new and significant

information that was identified for this cooling systems, and the GEIS, in its category one analysis, concluded that impacts are small.

The category one issues that are related to cooling system, include issues related discharge of sanitary wastes, minor chemical spills, metals and chlorine. And as you recall, the GEIS has already determined that these impacts are small. We did evaluate all available information to see if there was any information that was both new and significant for these issues, and we did not find any new and significant information from the sources that we talked about on the previous slide. And therefore, we adopted NRC's generic conclusion.

Radiological impacts. Radiological impacts are also category one, and the NRC has made a generic determination that the impact of a radiological release during nuclear plant operations over the course of the 20 year license renewal period are small. But because there are releases, and they are concerned, I want to discuss them in some detail.

Nuclear plants are designed to release radiological effluence to the environment. Palisades is no different than other plants, and Palisades releases radiological effluence to the environment.

During our site visit, we looked at the effluent release and monitoring program documentation. We looked at how the gasses and liquid effluence were treated and released, as well as how the solid wastes were treated, packaged and shipped. We looked at how the Applicant determines and demonstrates that they are in compliance with the regulations for release of radiological effluence. We also looked at data from onsite and near site locations that the Applicant monitors for airborne releases and direct radiation, and other monitoring stations beyond, stations beyond the site boundary including locations where water, milk, fish and food products are sampled.

We found that the maximum calculated doses for a member of the public are well within the annual limits, since releases from the plant are not expected to increase on a year-to-year basis over the 20 year license renewal term. And since we also found no new and significant information related to this issue, we adopted the generic conclusion that the radiological impact on human health and the environment is small.

Threatened or endangered species. The U.S. Fish and Wildlife Service, one of the agencies with whom we consulted, determined there are four terrestrial Federally listed or, Federally listed as

threatened or potentially endangered species, and they have the potential to occur at Palisades or along its transmission lines. These four species are the Pitcher's Thistle, Karner Blue Butterfly, Mitchell's Satyr Butterfly and the Indiana Bat. The Eastern Massasauga Rattlesnake has been identified as a candidate, as a potential candidate for listing.

Our review has indicated that continued operation of Palisades during the license renewal period term would not likely have any adverse effect on these species. The Applicant currently has no plans for refurbishment activities that could affect the habitat of these species. The U.S. Fish and Wildlife Service determined that there was no need for a biological assessment or further consultation under Section seven of the Endangered Species Act. Based on this, the Staff's preliminary determination is that the impact of the operation of Palisades Nuclear Plant during the license renewal period on threatened or endangered species would be small.

Cumulative impacts of operation. This the last issue I'd like to talk about from Chapter four, and it's cumulative impacts. These are impacts that are considered minor when considered individually, but significant when considered with other past, present

or reasonably foreseeable future actions regardless of what Agency or person undertakes the actions, the other actions. The Staff considered cumulative impacts resulting from operation of the cooling system, operation and transmission lines, releases of radiation and radiological material, sociological impacts, groundwater use and quality impacts, and threatened and endangered species impacts.

These impacts were evaluated to the end of the 20 year license renewal term, and it's, and I'd like to note that the geographical boundaries of the analyses depend upon the resource. For instance, the area analyzed for transmission lines is different than the area analyzed for perhaps, say, the cooling system. Our preliminary determination is the cumulative impacts resulting from the operation of the Palisades Nuclear Plant during the license renewal period would be small.

There were other environmental impacts evaluated. The team also looked at issues for uranium fuel cycle and solid waste management, as well as decommissioning and they are considered category one. For these issues, we would be looking for new and significant information. And as I had mentioned, in the resources that we work with in terms of input to

the process, no new and significant information was identified.

As I pointed out, then we discuss what alternatives might be available. My team also evaluated the potential environmental impacts associated with the Palisades Plant not continuing operation and replacing this generation with alternative power sources. The team looked at a no action alternative, new generation from coal-fired, gas-fired, new nuclear, purchased power, and alternative technologies such as wind, solar and hydro power. And then some combination of the various alternatives.

For each alternative, we looked at the same types of issues. For example, water use, land use, ecology, socioeconomics. They're the same issues that we looked for during the evaluation of the Palisades Plant during the license renewal term. Palisades has a net summer capacity of 786 megawatts, so we, when we were looking at the coal-fired and natural gas alternatives, we assume construction of approximately an 800 megawatt plant to replace that Palisades capacity. For new, for the new nuclear alternatives, the Staff assumed the same capacity as the existing Palisades Plant, that is 786.

For two alternatives, solar and wind, I'd like to describe the scale of the alternatives that we considered because a scale is important in understanding the conclusions. First for solar, based on the average solar energy available in Michigan and the current conversion efficiencies of photo, I'm sorry, photovoltaic cells and solar thermal systems, between 17,000 and 43,750 acres of land would be required to replace the generation from just the Palisades plant. For wind power, replacement of that base load would require approximately 120,000 acres of land. Due to the scale of the reasonable alternatives, the team's preliminary conclusion is that their environmental effects, at least in some of the categories that we considered for impacts, would be moderate or large.

So for the preliminary conclusions, for the 69 category one issues presented in the generic EIS, the GEIS, that relate to Palisades we found no information that was both new and significant. Therefore, we have preliminarily adopted the conclusion that the impact of these issues is small.

My team analyzed the remaining category two issues in this supplement, and we found the environmental effects resulting from these issues were

also small. During our review, my team found no new issues that were not already identified.

Last, we found that the environmental effects of alternatives, at least for some of the impact categories, could reach moderate or large significance. Now, I'll turn it over to Bob Palla to talk about the postulated accidents.

MR. CAMERON: Let's go for questions. Okay, Bo, do you want to clarify something?

MR. PHAM: Yes. I want to just take a quick moment just to pause here and make sure that Chester was satisfied with our addressing of the socioeconomic. We looked at factors like housing, the infrastructure and land use for the area, and we did not find anything that was, that negatively impacted the environment.

MR. CAMERON: And let me just see if Chester has a follow-up on that. Chester, do you have more things that you want to ask about the socioeconomic analysis.

MR. LOWE: Not about the socioeconomic. Mainly about the sociological impact.

MR. CAMERON: Okay. Let me go to Ken, and then we'll go to this young, Nancy? Kathy. All right. All right. So are you guys ready to answer

questions? Okay. Okay, Ken, please introduce yourself to us.

MR. RICHARD: I'm Ken Richards. I live three miles from the plant and I've been following this issue probably since the plant's inception. And the first question I have is about the process here. We've, I've been talking with a lot of local people. There's a lot of folks who really think this license is already done. It's already been issued. I was wondering if you would clear that up. I'm reading in the manual and I come across, or it sounds like it's trying to justify the license that is already done. And other places I see, it's not going to be, the decision won't be made until 2007. There's still another meeting in Washington, D.C. in December. When does this license get issued?

MR. CAMERON: Okay. And what I'd like you to do Bo, is to not only talk about what remains to be done on the Environmental Impact Statement, but please tell people going back go Rani's initial presentation all the different parts that need to come together before there is a decision and what time frame. I think starting off, the bottom line is is there has been no decision yet. And Bo with that, can you explain --

MR. PHAM: Yeah.

MR. CAMERON: -- to the audience what this is all about?

MR. PHAM: Yeah. Definitely I want to reiterate that there has been no --

AUDIENCE MEMBER: Louder.

MR. PHAM: Okay. It was off. Can you hear me now? Okay. Yeah, I definitely want to reiterate that no decision has been made and there's no finality on this decision. What we're here today, what we're here to do today is to take your comments regarding the environmental review process. And if you look at this screen up there, the process of license renewal breaks down into two paths basically. One is the safety review, and Juan Ayala is the Project Manager for that path. And I am here for the environmental review process. And we're not complete with that, you know, so basically towards, at the end there what you're going to have is a complete review from both paths and that, those two, you know, when the Commission comes to a decision based on those two paths, is the finality of the review and that's when the Commission will decide whether a license is renewed.

MR. CAMERON: Okay.

MR. PHAM: Does that answer your question?

MR. CAMERON: Let's just, Rani, do you want to, hold on a minute Ken. Just let me see if Rani wants to add anything to that for your benefit.

MS. FRANOVICH: The final Safety Evaluation Report, which is the culmination of the Staff's safety review, here, that is expected to be issued in October of this year. Once we issue the Safety Evaluation Report, it will go to the ACRS for their independent review. And once they've completed their review, they'll have some recommendations for the Commission directly. The NRC decision on whether to issue a new license here, is when Juan? What's the ETA for the new licenses? 22 months from the time that we get the license in hand. So 22 months from March, I guess it will be January of '07. January of '07 is when we are supposed to --

MR. RICHARD: Is that the old original, one of the, and one of the decommission --

MR. CAMERON: Ken, we need to get you on the record, so I'm going to give you a follow-up, and then I'm going to go to Kathryn. And then we'll go over to you. And that estimated time for the decision, is the decision on whether to renew the license?

MS. FRANOVICH: Correct.

MR. CAMERON: Okay. Do you have one follow-up?

MR. RICHARD: No, I've got quite a few. I was going to wait for the two hour session.

MR. CAMERON: Okay. All right. Let me go to Kathryn.

MS. BARNES: Yeah. These questions are for Mr. Miller. You are, your degree is in Environmental?

DR. MILLER: Engineering.

MS. BARNES: Engineering. Have you worked with wind technology?

DR. MILLER: Well, members of my team have. Oh, sorry, yes. I am the team lead as I --

MS. BARNES: Okay.

DR. MILLER: -- wanted to point out. We had another ten other experts in their various subject matter experts.

MS. BARNES: Okay.

DR. MILLER: For instance, when I, when I actually do a subject matter expert, mine's hydrology ground water, water resources, because that's where my discipline is. So we bring the appropriate expertise to the subject matter.

MS. BARNES: I was wondering on this assessment of wind and solar, granted Michigan doesn't have sunshine every day like the Western states. Solar really isn't feasible here as an alternate. But what about the wind? You're saying it's, it's a large concern because it takes a lot of land. How much of power for Palisades is sold out of state? What percent of the power is sold out of state?

DR. MILLER: I'd like to address the wind, the wind point first and then I can ask others to address that.

MS. BARNES: Okay. Well, this, this --

DR. MILLER: But, may I address the wind part of it?

MS. BARNES: Well, this, this, this all comes together because if you're taking this and you're saying 143,000 acres, but if Palisades, like DC Cook, sells most of its energy out of state, that's really not a proportionate summation.

DR. MILLER: I, I think I understand your question. I think I understand your question.

MR. CAMERON: -- please.

MS. BARNES: And also I was wondering --

MR. CAMERON: Kathryn, let me --

MS. BARNES: One other thing, please.

This is, this is important. What are you basing on, what size wind generators are you basing this summation on? The small little ones, or the ones that they're using now, the big ones that Consumers Energy's investing in to replace the nuclear? Palisades is up for sale. They want it off their hands. They were investing in green energy and it's working. So I wonder about this.

And also, this whole summation. It's all, you're all under the premise on this whole review that there's, nothing's going to happen. That there's no accidents. But there's things that happen all the time. So this, you're, you're, you're process, I think is defective.

MR. CAMERON: And Kathryn --

MS. BARNES: But I would like to know, technically, all right, how you came to this summary and the size of the wind generators you took into account in this summary, et cetera, et cetera, et cetera. The whole detail.

MR. CAMERON: And if you could just, we appreciate your comments and we want to hear them.

MS. BARNES: I'd like some answers.

MR. CAMERON: But if you could just hold your comments until the comment period and we'll try

to get you some answers to your question. And I just want to make sure that Dave gets a chance to answer the question about the analysis. And Bo you indicated you understand where Kathryn's going with the amount of power generated, shipped out of state. Why don't we let Dave talk about how that analysis was done on wind, and then you can tie that going out of state thing in, I think --

DR. MILLER: Sure.

MR. CAMERON: -- would be good.

DR. MILLER: Well, regarding, and I realize it is a complex issue, and that's why we do look at combinations of alternatives. And the details that are fairly significant would be difficult to get into completely here, but they are laid out both in the GEIS and then supplemental information in the supplement.

But to answer the basic question about the kind of wind generation capacity that's considered, it's not a single specific design. It's basically a design that uses current efficiencies ranging between about 25 to 35 percent efficiencies that, that would gather roughly 25 to 35 percent of the energy available in the wind, in that wind field at any single time. And so that, and then you look at the

size of area that you need to support that amount of wind and you scale it by the 25 to 35 percent value, and that's how you come up with the acreage required for the wind replacement of the base level.

MS. BARNES: So you're --

MR. CAMERON: And its size, and Kathryn, I'm sorry, we need to get everybody on the transcript. And also, although I apologize for this, we can give so much of an answer now to the questions, and then we might have to talk to you after the meeting because we do want to hear your comments also. So let's go with the questions that you have on the floor, and I think that, did we answer? You did have a question about the size of the wind turbines that are used. Steve, can you say anything about that?

DR. MILLER: Yes. The analysis, the alternative analysis assumes that Palisades is producing 780 megawatts of electricity right now. And so we're trying, in all of our alternatives we try to baseline that as the replacement amount of energy that needs to be, that needs to be provided. So based on that the scale of the wind farm or, you know, other sources, in the particular case of wind and solar, the amount of land use that's required for, to produce that capacity is going to have a greater impact. And

that's why we, you know, we're not saying that wind power in general has a large effect on the environment. We're just comparing to what we have today. And so that's the basis of our comparison and analysis.

MR. CAMERON: Okay. And you can please talk to Kathryn after the meeting with more details on this. And I'm going to go to this gentleman over there, and then Corinne, and we're going to go on to the SAMA issue. Okay? Yes sir? And please introduce yourself.

MR. DAL MONTE: My name is DalMonte, and I am the President of -- Now my, my question is, in this regard, is that we are reading this report or your final result is administered by you and it's only, is going to say, well, that Palisades can continue. I mean, the fact that Palisades can continue operation is not unreasonable. And I understand that you are stressing that result. But on the side, you are taking position on alternative solutions that I read and I don't think is enough education in your point. Because the fact is that wind is flying. We are having wind all over the world and in here too. So I guess you missed the point in this. And I don't understand why you, you are so

concerned on our selecting alternatives if we know about the alternatives. And really, you are not doing a good job and the guys are going to really make the decisions, went through the final decision. Okay, thank you.

MR. CAMERON: Mr. Dal Monte, thank you for that. And we are going to hear from you later on. I think that the question there that we could provide some information on is why do we do the alternatives analysis. Can you put that in perspective for us Bo?

MR. PHAM: Yeah, let me try to frame that. You know, like I said before, we take a baseline of what we're trying to replace, the energy source that we're trying to replace, which is the Palisades Nuclear Plant that's there right now. We're not, if you can try to look at it as not comparing wind power versus nuclear power versus anything else. We're looking what, what the potential environmental impact of each of those alternatives is going to result in. So that's what our analysis is.

We're not here, and we don't, the NRC doesn't have the jurisdiction really to make the energy policy of what, you know, what comes out of Palisades and what other different sources of energy. And so what we're here, and you know, I'm trying to,

I guess, define the scope of what we look at is really, all these different alternatives and not comparing them and making the judgment of whether one is better than the other. We're just simply stating that this is what the environmental impact is going to be with wind power, with the nuclear power plant, or with solar power, or with other alternatives as well.

MR. CAMERON: And Rani, do you want to add to that?

MS. FRANOVICH: I just want to add something. You know, you're, you're looking at a nuclear power plant. It's already built. It's already operating today. So the impact of its continued operation is quite different from the impact of closing that facility, building a wind farm of large components that would harvest the wind energy, or another site that would have solar panels to harvest the energy of the sun. The environment associated with building those new sites is larger, it's a larger impact to the environment than continuing to run a facility that's already built and operating now. So on a logical level, that time makes sense.

MR. CAMERON: Okay. We're going to go to this gentleman.

MR. HENKEL: I'm Don Henkel.

MR. CAMERON: Yes, we usually --

MR. HENKEL: I'm still Don Henkel. Point of information. I understand there's some hundred and some odd nuclear power plants throughout the United States. How many of those have applied for renewal licenses? And of those who have successfully applied for a renewal license, how many have been approved and how many have been disapproved?

MS. FRANOVICH: Okay. That's a good question.

MR. CAMERON: And Rani, please, put that in the context too in terms of our process about rejection of applications, et cetera, et cetera. Thank you sir.

MS. FRANOVICH: There are 103 operating reactors across the country. We haven't quite gotten halfway through the fleet. I'd say 47 or 48 or so, thus far, have applied for renewal. And this is reactor units, not necessarily sites. There have been a couple that we've returned because the information in the application was not adequate or sufficient for the Staff to begin and complete its review.

For those that we did not return, we requested additional information and it depends on

really the quality of the original submittal will dictate how many requests for additional information the NRC needs to put out there. But for the plant that I managed back a few years ago, there were 273 requests for additional information. So the Staff does not grant renewal for every application it receives because it's a pro forma review. The Staff will continue to get the information it needs to complete its review, and will not be satisfied until that information is received.

So when we issue our Safety Evaluation Reports, a number of times there are still open items that the Staff is not satisfied with. We do not issue a final Safety Evaluation Report and brief the ACRS on our work until the Staff is satisfied.

So the answer is we're roughly halfway through the fleet. We've returned a couple of applications for sufficiency issues. For the rest, we gathered more information than we received to insure we were satisfied with the information to complete our review.

MR. CAMERON: In terms of the number of licenses we've renewed though?

MS. FRANOVICH: I don't have the specific number off the top of my head, but I'm saying 40, I'm

thinking 48, 49 --

MR. CAMERON: 39.

MS. FRANOVICH: 39 per unit.

MR. CAMERON: All right. And Corinne, you had a question?

MS. CAREY: Yes. Several things. Number one, I'm concerned that the kinds of answers we're hearing, I, I feel are very questionable. For instance, wind power in itself, you don't measure that by acreage because farmers are finding a very successful business for them to put the wind farms along their lot lines. And so it's a very definite advantage environmentally in that respect, and I didn't hear that kind of that thing in your report.

Secondly, I heard that solar and acreage. And it's my understanding that solar is very commonly mounted on rooftops and walls in cities, which also reduces the transmission loss, et cetera, that comes from centralized nuclear plants scattered around and have this great transmission loss over their process of getting the electricity to where it's needed. And there was a third point, and I can't think of it right now.

MS. FRANOVICH: Did you have a question?

MR. CAMERON: And no, I think Corinne is,

I think the comment we have of what Corinne is saying is that there may, comments like she just made and like we're going to hear tonight, and I'm sure from Kathryn, for example, on wind power are all the things that we need to hear to consider in finalizing our report. And Dave Miller did a summary of the report and didn't get into every detail where that type of thing may be coming out. And I'm going to go to this lady back here for a question, and then I think we need to go on to SAMAS. If we have time to come back to you, Kathryn, we will. But we really need to get to the next presentation. Yes ma'am?

MS. HIRT: I'm Alice Hirt. And I do not really need to ask a question right now, but I want to respond to Ms. Franovich. Is that what your name? I, I feel that you respond to the question about the impact of other technologies on the environment with a very subjective answer. And I sort of resent you making that sort of sweeping statement. I don't believe that you are an expert on all other technologies and for you to say that new other sources, say wind and so forth, would have a greater impact on the environment than keeping Palisades going, I, that is certainly not my estimation, and I don't believe that that was really your place to make

that sort of a sweeping comment.

MR. CAMERON: Okay. And the, Alice, what we have in the report, and Rani is the Section Chief for the environmental section that does these, there's details in there that arrives at that conclusion as Mr. Miller presented. And he may have done that before you, I don't know if you were here for his presentation, but that is the conclusion. And indeed people will, can and will disagree with that, and we want people to tell us if they disagree with it and tell us why they disagree with it basically. And Rani, do you want to add anything else at this point? It wasn't --

MS. FRANOVICH: She's entitled to her --

MR. CAMERON: -- a question.

MS. FRANOVICH: -- view and I appreciate her expression of it. I, I'm not an expert. You're absolutely right. What I was doing was explaining the Staff's conclusions on the analysis that was performed by the experts.

MR. CAMERON: Which was done by the experts.

MS. FRANOVICH: Correct.

MR. CAMERON: Okay. And I'm sorry that we can't go back for second questions here.

MS. BARNES: I didn't have my first one answered. I asked questions and no one answered them.

MR. CAMERON: They tried their best to answer the question Kathryn.

MS. BARNES: I asked how much is sold out of state and what size wind, what size wind generators.

MR. CAMERON: Okay. That's two questions. How much is sold out of state and what is the size of the turbine? That's, that's true Kathryn.

MS. BARNES: No. What, what is the size in your analysis, what size, what size wind generators are you saying would take that much acreage? And how much of Palisades power is sold out of state? Those are two questions I asked they will not answer.

MR. CAMERON: You want to do this one? Okay. Exactly right.

MR. PHAM: Only can answer the first one. I do not have the numbers to provide for you regarding how much power is sold out from Palisades. That's, the NRC doesn't have any say in that, in that decision actually. Your second question regarding the, what size turbine, I believe we look at the predominant research that's out there based on the Department of Energy and other bodies. The National Academy of

Sciences, for example, and take a look, and we use, we don't use specific models or types of turbines. We look at the general baseline efficiency of what wind turbines, the best and the worst of what the wind turbines can do right now.

MR. CAMERON: Okay. And if anybody does have the information on the amount of power sold out of state, if they can give Kathryn after the meeting, please, please do that. And, yes sir?

AUDIENCE MEMBER: I'm, I'm, my only questions is why was oil in the same category with solar and wind? That's, in the alternative, it was listed with the alternatives.

MR. CAMERON: And the answer to that question? And is it going to be Bo or Dave?

MR. PHAM: I would say that there was no connotation or nothing meant by it. Yeah, it's just one of the alternatives that we looked at.

MR. CAMERON: Okay.

MR. SCHAAF: I can, I can --

MR. CAMERON: All right. Bob Schaaf on that one.

MR. SCHAAF: What we look at in the alternatives analysis is, NEPA requires us to evaluate and assess the impacts of alternatives to the proposed

action. The proposed action here is for the plant to continue operating for an additional 20 years. At the very least, we need to look at what's called the no action alternative, which would be not renewing the license and identify those impacts. The NRC has decided from a practical standpoint, if the plant does not continue to operate, something will need to be done to replace the generation lost when that plant ceases operation. That may be a new base load power generating facility. It may be purchasing power from outside of the service area. That may be renewable alternatives. It may be a new, large, base load power generating station.

When we do these alternatives' analyses, we look at the infrastructure that is in place in the vicinity of the site to look for what are the likely alternatives that we do a detailed analysis on. You have a gas fired plant just across the freeway from the Palisades site. So there is infrastructure in place to deliver natural gas which would allow you to install and construct a large base load gas-fired generating station. There's a rail line in the vicinity of the site, which would allow you to bring in coal to construct a coal-fired generating station. Although I believe in this case we didn't look at

placing the coal-fired plant at the site. We looked at placing it somewhere else in the service territory because of the sensitivity of the dunes area. We also looked at new nuclear construction because there is interest in the industry in constructing new nuclear generating stations.

Under other alternatives, the reason oil is in with the wind and the solar and the conservation, is because these are alternatives that we looked at in less detail because we didn't consider them to be the likely alternatives for replacing loss generation if the license was not renewed. There's not infrastructure in place necessarily to bring an oil, plus there are other uses for oil in transportation and in the chemical industry. That's why it's in there.

We're not saying that it's equivalent to some of these renewable sources that we considered, the wind, the solar. The reasons that the wind and solar aren't looked at in, in as great a detail frankly, is that we're talking about replacing a large base load generating station that is expected to operate for roughly 90 percent of the time. Wind won't generally do that. Solar won't generally do that. And so we consider those alternatives, and we

discuss the impacts of those alternatives, but we don't view them in the same level of detail.

MR. CAMERON: Okay.

MR. SCHAAF: I guess that's, that's why it's in there.

MR. CAMERON: Thank you. That's very helpful.

MR. SCHAAF: And that's kind of a concise discussion on that.

MR. CAMERON: That's very helpful. We really, I'm sorry, we really do need to move on to Bob Palla.

MR. SCHAAF: And I'm available to discuss that after, after the meeting is over.

MR. CAMERON: Yes. I think that gentleman and a bunch of people might want to talk to you about that, Bob. Thank you Dave, Bob, Bo. And we're going to go to Bob Palla. And then we'll be back to Bo for some final comments here. These are accidents, the accident analysis.

MR. PALLA: Good afternoon. My name is Bob Palla, and I'm with the Division of Risk Assessment at NRC. And I will be discussing the environmental impacts of postulated accidents. These impacts are discussed in section five of the Generic

Environmental Impact Statement, or GEIS.

The GEIS evaluates two classes of accidents. These are called design basis accidents and severe accidents. Design basis accidents consists of a broad spectrum of postulated events that both the licensee and the NRC Staff evaluate to insure that the plant can respond without undue risk to the public. The ability of the plant to withstand these accidents has to be demonstrated before the plant is granted a license. Since the licensee has to demonstrate acceptable plant performance for the design basis accidents throughout the life of the plant, the Commission has determined that the environmental impact of design basis accidents is of small significance. Neither the licensee nor the NRC is aware of any new and significant information on the capability of the Palisades plant to withstand design basis accidents. Therefore, the Staff concludes that there are no impacts related to the design basis accidents beyond those discussed in the GEIS.

The second category of accidents evaluated in the GEIS are severe accidents. Severe accidents are by definition more severe than design basis accidents because they could result in substantial damage to the reactor core. The Commission found in

the GEIS that the risk of a severe accident is small for all plants, and by this I mean the probabilistically weighted consequences.

Nevertheless, the Commission determined that alternatives to mitigate severe accidents must be considered for all plants that have not done so. These alternatives are termed SAMAs, Severe Accident Mitigation Alternatives. The SAMA evaluation is a site specific assessment and it is a category two issue, as explained earlier. The SAMA review for Palisades is summarized in Section 5.2 of the GEIS supplement, and is described in more detail in Appendix G of the supplement. And the purpose of performing this SAMA evaluation is to insure that plant changes with the potential for improving severe accident safety performance are both identified and evaluated.

The scope of the potential improvements that were considered include hardware modifications, procedure changes, training program improvements, basically a full spectrum of potential changes. And the scope of the SAMAS include SAMAS that would prevent core damage, as well as SAMAS that would improve containment performance given that a core damage event were to occur.

The SAMA evaluation consists of a four step process. The first step is to characterize overall plant risk and leading contributors to risk. This typically involves the extensive use of the plant specific Probabilistic Safety Assessment Study, which is also known as the PSA. The PSA is a study that identifies the different combinations of system failures and human errors that would be required in order for an accident to progress to either core damage or containment failure.

The second step in the evaluation is to identify potential improvements that could further reduce risk. The information from the PSA such as the dominant accident sequences is used to help identify plant improvements that would have the greatest impact in reducing risk. Improvements identified in other NRC and industry studies, as well as SAMA analyses for other plants are also considered.

The third step in the evaluation is to quantify the risk reduction potential and the implementation costs for each improvement. The risk reduction and the implementation costs for each SAMA are typically estimated using abounding analysis. The risk reduction is generally over estimated by assuming that the plant improvement is completely effective in

eliminating the accident sequence it is intended to address. And on the other hand, the implementation costs are generally underestimated by neglecting certain cost factors, such as maintenance costs and surveillance costs associated with the improvement. The risk reduction and the cost estimates are used in the final step to determine whether implementation of any of the improvements can be justified.

In determining whether an improvement is justified, the NRC Staff looks at three factors. The first factor is whether the improvement is cost beneficial. In other words, is the estimated benefit greater than the estimated implementation cost of the SAMA. The second factor is whether the improvement provides a significant reduction in risk. For example, does it eliminate a sequence or a containment failure mode that contributes to a large fraction of the plant risk. And the third factor is whether the risk reduction is associated with aging effects during the period of extended operation, in which case it was, we would consider implementation of the SAMA as part of the license renewal process.

This slide summarizes the results of the SAMA analysis. The preliminary results indicate that, well basically, 23 candidate improvements were

identified for Palisades based on review of the plant specific PSA and dominant risk contributors at Palisades, as well as SAMA analyses performed for other plants. The licensee reduced the number of candidate SAMAS to eight, based on a multi-step screening process.

Factors considered during the screening included whether the SAMA is applicable to Palisades due to design differences and whether the SAMA would involve extensive plant changes that would clearly be in excess of the maximum benefit associated with completely eliminating all severe accident risk. A more detailed assessment of the risk reduction potential and implementation costs was then performed for each of the remaining SAMAS. This is described in detail in Appendix G of the GEIS supplement.

The detailed cost benefit analysis shows that several of the SAMAs are potentially cost beneficial when evaluated individually in accordance with the NRC guides for performing regulator analysis. Six of the eight SAMAs that survived the screening process were identified as potentially cost beneficial within the environmental report that was submitted for the NRC's review.

Four additional potentially cost

beneficial SAMAS were subsequently identified during the Staff's review of the environmental report. Two of these additional SAMAs involve lower cost alternatives to SAMAs that were eliminated in the licensee's initial screening. In other words, the Staff thought that there might have been a lower cost alternative to some of the ones that were identified, and these were flagged for further consideration. The other two additional SAMAs involve improvements that were found to be cost beneficial at several other plants when they looked at them as part of license renewal. And these were thought to be potentially applicable to Palisades, so these were also identified as potentially cost beneficial for Palisades. So, thus, a total of 10 SAMAs were identified as potentially cost beneficial as a result of the SAMA analysis.

And I just want to point out that it's important to note that some of these improvements, these SAMAs, address the same risk contributors but in a different way. For example, one SAMA might involve procedure changes that improve the ability to cope with a station blackout event, whereas another SAMA might involve hardware changes that also address station blackout events. In such incidences,

implementation of one of these SAMAs could reduce the residual risk to a point that one or more of the related SAMAs would no longer be cost beneficial. And it's because of this interrelationship between SAMAs that we would not expect that the implementation of all 10 SAMAs would be justified on a cost benefit basis, but rather implementation of a carefully selected subset of the SAMAs could achieve much of the risk reduction and would be more cost effective than implementing all of the SAMAs.

To summarize the results, in looking across the set of 10 potentially cost beneficial SAMAs, none of these SAMAs relate to managing the effects of plant aging during the period of extended operation. Accordingly, they are not required to be implemented as part of license renewal pursuant to the regulations. Notwithstanding this, NMC has committed to further evaluate the 10 potentially cost beneficial SAMAs for possible implementation as a current operating license activity. And completion of these activities is underway and is being tracked in the licensee's plant change process.

MR. CAMERON: Okay. Thank you Bob. And that's all laid out in the Draft Environmental Impact Statement. Anybody have any questions on this SAMA

aspect?

AUDIENCE MEMBER: Are they detailed in the EIS?

MR. CAMERON: Yes they are.

MR. PALLA: In the supplement. Chapter five is a summary, Appendix G is a detailed accounting.

AUDIENCE MEMBER: The ones that were not approved are detailed also?

MR. PALLA: The entire set is described there. And then which ones were deemed to be cost beneficial, and which ones are being further evaluated, that's all spelled out specifically.

MR. CAMERON: Thank you. Mr. Dal Monte?

MR. DAL MONTE: What I wondered is, the basis like sabotaging where taking account can be -- in this way too. And if you have done that, because this, my contention is is a new issue. They're not the same like previous plan.

MR. CAMERON: Bob, I think this is a question that we get in terms of seismic, what are the subjects that are included within the scope of SAMA procedures.

MR. PALLA: Well, let me say what is included. The short answer is sabotage is not

included within the risk profile that we do this, the SAMA analysis for. What we include is internally initiated events, fires within the plant, internal floods, seismic events, high wind events, things that we can analyze basically. When it comes to sabotage, even if we wanted to include it, it defies quantification and really systematic analysis. So that, that would be one deterrent to, to try and include it here, is that it just is very difficult to quantify the frequency of these events.

Now Rani Franovich mentioned at the beginning, this is, these issues are being addressed as part of the current situation with the plant. We're not done with that work yet. This is still in progress. Plants are, have beefed up their security arrangements and are looking further at mitigation strategies within the plant to deal with things like aircraft impact. This is all not being forgotten. But we're looking at it now. It's not really tied into license renewal. And it was not part of this evaluation.

MR. CAMERON: Okay. Thank you. And let's have one more question right here on SAMA, and then Bo if you could conclude and then we can go and hear what people have to tell us. Yes ma'am?

MS. MCFADDEN: I'm Jean McFadden. I'm a social worker. I'm assuming that the SAMA discussion doesn't relate to the embrittlement of the aging reactor.

MR. PALLA: That's correct.

MS. MCFADDEN: Okay.

MR. PALLA: That would be determined to be acceptable as part of the, as the safety review did.

MS. MCFADDEN: So, so then, looking at this other report on emergency finding and preparedness, are you confident in the ability of FEMA, after seeing Hurricane Katrina, to come in and manage an emergency here in Van Buren County?

MR. CAMERON: And can we just, this, this is an important issue, obviously, emergency planning. And can you just, Rani or Bo, can someone just lay out what the responsibilities are for emergency planning NRC, local government, FEMA, and we may need to talk to you further about that, but can you do that?

MR. PHAM: Yes.

MR. CAMERON: All right.

MR. PHAM: The, basically, the NRC, our jurisdiction as far as emergency planning is to make sure that the personnel on site are protected from the dose, dosage in the case of emergencies. Now in the

case with outside of the, offsite, that's something that we coordinate with FEMA, local authorities and everything. I can't, I can't answer your question regarding do I have confidence in FEMA to do it.

MS. MC FADDEN: Why not?

MR. CAMERON: Okay. Rani, do you want to try to address this, and we'll just hear from the State of Michigan before we go on. But can we do, can we tell people what FEMA's responsibility is vis a vis local government and the NRC, at least tell them that?

MS. FRANOVICH: Yes. And we're experts more in the license renewal arena, so we don't have people at this meeting who can really speak to you on the details of, of, you know, the NRC's coordination with FEMA and local and state officials.

But I can tell you that licensees periodically conduct drills, and the NRC participates. So does FEMA, so do state and local officials. And after the drills there is a debriefing, there is a look at lessons learned, so that is where the NRC is engaged. We really can't comment, it wouldn't be even appropriate for us to comment on FEMA's capabilities. But I can tell you that our jurisdiction is, does the site have an emergency plan? Do they exercise that plan on a periodic basis? And does that involve

coordination with other stake holders, state and local officials and --

MR. CAMERON: And I think we're going to hear from the, from the people who have direct responsibility, Jean, right now, with the state. Can you explain that please?

MS. ELZERMAN: The State of Michigan is very proactive in doing their own emergency planning. The state police, Emergency Management Division and Homeland Security are in charge as lead agency for the State of Michigan for any emergency. During a radiological emergency, we, the Department of Environmental Quality Radiological Protection, will step in and be their counterpart for the radiological part. In no way will we let FEMA take over. Our state will run the emergency until the very end. Thank you.

MR. CAMERON: Okay. Thank you for that. And Bo, can you summarize so we can on and --

MR. PHAM: Yes. Thank you for that comment, by the way. So turning on to our conclusions, we found that the impacts of the license renewal in all areas were small. We also concluded the alternative actions that we discussed in some subsequent discussions after Dr. Miller's

presentation, including the no action alternatives, may have moderate to large environmental effects in some impact categories.

Based on these results, our preliminary recommendation is the adverse environmental impacts of license renewal is not so large that it would be unreasonable to forward the planning decision makers to leave that as an option.

This slide is a quick recap of our current status. The Draft, like I said before, the Draft Environmental Impact Statement was issued on February 14th. To go back to the question earlier about the 45 day period, the February 14th date is actually the date that the NRC issued or published our Environmental Impact, our Draft. Publicly it's not legitimate or it's not available to the public, per se, until the EPA recognizes it, checks it in the system, and publishes a Federal Registered Notice. And that was done on February 24th.

Now by regulations we are required to give a minimum of 45 days for comments from the time of issuance of the Draft, and we actually built in a 75 day period from the February 24th date. And like I said, even with that we have a little cushion for May 18th. So once again the comment period end date is

going to be May 18th, and then we expect to issue the final impact statement sometime in October of this year.

This slide identifies me as your primary point of contact with the NRC for the preparation of the Environmental Impact Statement. It also identifies where the documents related to our review may be found in the local area. Palisades' Draft Environmental Impact Statement is available at the South Haven Memorial Library. All documents related to the review are also available at the NRC's website, www.nrc.gov.

And in addition, as you came in you were asked to fill out a registration card. If you did and you included your address on there, we will mail a copy of the draft and a final, final impact statement to you. If you did not fill out a card, I do encourage you that you do. And if you need to know how to do it, please contact, Cristina, could you raise your hand please? Cristina Guerrero will be out at the registration desk and they'll be able to give you the cards for the registration.

In addition to providing comments at this meeting, there are other ways that you can submit comments to, for our environmental review process.

You can provide written comments to the Chief of our Rules and Directives Branch, at the address on the screen there. You could also make comments in person if you happen to be in Rockville, Maryland. We've also established, to make it easier, we've also established an e-mail address that you can write to us at palisadeseis@nrc.gov, there at the bottom.

This concludes my remarks and thanks again. Once again, thank you for taking the time to come this afternoon. And I suppose we can take a few more questions.

MR. CAMERON: Well, let's, I think what we're going to do is move on to the comments now, but I would just ask the NRC staff, you heard questions, concerns. After the meeting, if there's a possibility of talking to people. For example, we heard Kathryn, Corinne, others on, and Alice Hirt about the analysis of alternatives. You might want to talk to them, and I don't want to forget that Chester had some issues on sociological, so Dave I know you have a colleague with you. I don't know how much you can divide your time, but you might want to talk to them after the meeting.

And with that, we're going to go to hear from you. And we have to start with, three governmental folks. And we're going to start with

Mary Ann Middaugh first, and then we're going to go to John Tapper, and then to Nancy Ann Whaley. Mary Ann, could you come up? And then after we hear from those three, we're going to go to Kevin Kamps, Ken Richards, and Don Henkel. Yes, please. And I guess that in order for this to really be heard, you're going to have to --

MS. MIDDAUGH: I'm pretty good at that.

MR. CAMERON: -- speak in. Good, good, thank you.

MS. MIDDAUGH: Politicians always want to be heard. My name is Mary Ann Middaugh. And the people of southwest Michigan voted to have me represent them in the Michigan legislature for six years, the maximum allowed under our Constitution. I served as Chair of the House Energy and Technology Committee when the electric restructuring was passed.

During our hearings and other deliberations, it was clear that Michigan needs nuclear energy and Michigan needs the Palisades plant as it generates enough power for 500,000 of Michigan's residents. Because Michigan is a peninsula, we're limited in the amount of energy, we can't come across where the lakes are, limited in the amount of energy we can import from contiguous areas.

Our committee looked at the environmental and safety record of this plant and the record of how the Nuclear Management Company dealt with any problems that arose. The record is excellent on both counts. And we, as elected officials, were kept apprised of all activities at the plant.

I've had an opportunity to review the NRC's draft environmental report and want to commend you on a very thorough job you have done. Your conclusion that Palisades has not added anything harmful to the environment, has protected the endangered Pitcher's Thistle, monitors fish, water and crops monthly in the surrounding areas, and has kept reports and permits current with Michigan Department of Environmental Quality matches our findings.

Palisades employs about 600 individuals with a payroll of about $60 million. We very much need the jobs that Palisades provides to this area. These employees are not only responsible while at work, they are also a very real asset to this area of the state. They are involved in their churches, schools, families and communities.

Palisades is also a good corporate neighbor. They pay a great deal of taxes to area governments, and are very supportive of the community

and work together to make this area of the state a good place to live and raise a family. This is evident from the numerous letters and resolutions of support of re-licensing of this plant from area governmental bodies. I add my voice of support for re-licensure of this environmentally friendly electric generating plant. Thank you.

MR. CAMERON: Thank you very much, Mary Ann. We're going to go now to Mr. Tapper. And Mr. Tapper is a member of the Van Buren County Board of Commissioners. Mr. Tapper?

MR. TAPPER: Thank you.

MR. CAMERON: Your welcome.

MR. TAPPER: I'll make a quick comment because when I first talked with you earlier on, you elaborated five minutes. But I understand my five minutes started about ten minutes ago. Is that correct?

MR. CAMERON: No. I think we'll start it right now.

MR. TAPPER: Okay. Well, I'd like to tell you a little bit about myself, because I have been around Van Buren County all my life. I'm four 18's plus nine in age. I live in the house I was born in. And since '57, we've had a summer home along Lake

Michigan between South Haven and the Palisades plant. And actually, with being around all these years, I had the opportunity to be in the County Board of Commissioners 30 years, well, I've served over 38 years, since '52. And actually, I remember when Palisades was in the thinking stage, because Consumer had us go down to Benton Harbor. We got on a DC-3 and flew up to Charlevoix to look at what they had up there prior to our resolution. And we did have a resolution way back then. Now I do have a resolution that we approved on March 22nd of '05, and I would really like to read it to you.

Report of the Administrative Affairs Committee. I'm a Board of Commissioners. I hope everybody can hear me. Okay, thanks.

Whereas, Palisades has been in operation since 1971, safely providing electricity to Consumer Energy customers for those 34 years, and;

Whereas, based on Palisades' continued improved performance, particularly over the past four years since Nuclear Management Company has been operating Palisades, Consumers Energy has increased confidence in the plant's safety, reliability and predictability, and;

Whereas, to that end, Consumers Energy

announced last summer that it would seek a license renewing for Palisades. Nuclear Management Company will apply for a 20-year license renewal on behalf of the Consumers Energy next month with the U.S. Nuclear Regulatory Commission. When approved, Palisades' license will be renewed through the year 2031, and;

Whereas, this means continued employment to the residents of Van Buren County who operate and maintain the plant, continued tax revenue from the plant that are, revenues that are shared by various governments, hospitals, schools, county government, government throughout the region. And this really is continued support for the emergency management activities and continued employment paychecks that bolster your local economy.

Now therefore it be resolved that the Van Buren County Board of Commissioners support Consumers Energy in their application process.

This was approved March 22nd, '05 and signed by all seven commissioners. And really our livelihood since this plant has been here, has certainly helped. Helped schools particularly, and not just the Covert region. Thank you.

MR. CAMERON: Okay. Thank you Commissioner Tapper. And if you want us to attach a

copy of the resolution to the transcript --

MR. TAPPER: Sure.

MR. CAMERON: -- we can do that.

MR. TAPPER: Okay.

MR. CAMERON: All right. Thank you very much. And now we're going to go to Nancy Ann Whaley who's Geneva Township Supervisor.

MS. WHALEY: Hello. I'm Nancy Ann Whaley from Geneva Township. And I, like Mr. Tapper, live on the same land that I was born and raised on.

Geneva Township is located directly east of South Haven Township and it corners with Colbert Township on our southwest corner and their northeast corner. We are in the 10 mile range of the speaker system that gives us the alert warnings. And our western three tiers of sections are located in that siren system of Palisades.

I never realized until I became a board member of Geneva Township in 1987 and became acquainted with the operations and effects at Palisades Nuclear Plant on the structure and economic well being of Geneva Township, as well as the surrounding area. Palisades plant and people continuing support of our communities, organizations and businesses through usage, involvement and monetary

support enhancing the overall community health and welfare.

Many Palisades personnel live in Geneva Township and are tax payers which benefits Geneva Township, South Haven Area Emergency Services, Lake Michigan College, South Haven and Bangor Public Schools, Van Buren County Intermediate School District, South Haven Hospital, South Haven Senior Services and Van Buren County.

Being a South Haven Area Emergency Services Authority Board Member, I have watched as Palisades has contributed much to our fire and ambulance service in the way of training, equipment and support. This joint effort for the safety of our citizens and Palisades' personnel is a tribute to working together to make our community what it is today.

Over the years, we have been privileged to reports by Palisades' personnel at our Township board meetings, keeping us informed on happenings, new procedures, updating of siren warning system and just being available to answer questions that arise in our public settings.

The seminars presented by Palisades' personnel to provide exposure for the local

municipalities, businesses and industry to review the plant and safety procedures that are in place, as well as having contact personnel for our comments and questions is indeed beneficial. Mark Savage, Palisades' employee as well as property owner in Geneva Township, is always available to review any concerns that arise.

At the April 12th 2005 board meeting, the Geneva Township Board unanimously voted to support the license renewal by resolution which was presented to Mark Savage at that meeting. It is my strong belief that the negative personal and economic impact that all of us will feel if the operating license for Palisades is not extended will be a loss of great magnitude to this community. I'm asking your full support for the 20 year renewal of the licensing for Palisades.

The resolution that was passed at the Geneva Township Board on April 12th, 2005 reads:

Whereas, Palisades Nuclear Plant has been in operation since December of 1971 safety providing, safely providing electricity to Consumers Energy customers for those 34 years, and based on Palisades continued improved performance, particularly over the past four years since Nuclear Management Company has

been operating Palisades, Consumers Energy has increased confidence in the plant's safety, reliability and predictability, and to that end, CMS Energy announced last September that they would seek a license renewal for Palisades.

Nuclear Management Company will apply for the 20 year license renewal on behalf of Consumers Energy next month with the U.S. Nuclear Regulatory Commission. When approved, Palisades license will be renewed through the year 2031, and this means that the residents of Geneva Township and surrounding areas are receiving continued employment for those who operate and maintain the plant, continued tax revenues from the plant that are shared by the various governments, hospitals and schools throughout the region, continued support for energy management activities, and continued employee paychecks that bolster local economies, and to date, the NRC has approved 30 license renewals for generating stations and is reviewing applications for 10 others, and there are 103 operating nuclear plants in the United States that generate approximately 20 percent of the nations' electricity.

Therefore, be it resolved that the Geneva Township Board of Trustees supports Palisades' efforts

in the application for a 20 year renewal of the operating license and their efforts to continue the enhancement of economic conditions in our area. This resolution was presented and supported by all Geneva Township board members. Thank you.

MR. CAMERON: Thank you very much, Nancy Ann. I realize that a lot of you that took the time to do a prepared written statement for us, and we really appreciate that. We are going to try to move through this so that we get to everybody, so if you are going to be longer than five to seven minutes, if you could just try to summarize and we will put the prepared statement on the record too. And that's not directed at you Nancy. You were right on time. But I just wanted to say that.

And now we're going to Kevin Kamps from Nuclear Information Resource Service. And Kevin, you have a long history here so, please tell us about that too.

MR. KAMPS: My name is Kevin Kamps, and I work for Nuclear Information and Resource Service in Washington, D.C. But I'm from Kalamazoo, Michigan and I'm still a board member of Don't Waste Michigan representing the Kalamazoo chapter.

How many of you here heard about the near

drop of the fully loaded dry cask at Palisades last October? I have a question for folks at NRC. When we were having the hearing in early November in this, down the block here, how come that wasn't brought to our attention? I mean, our, if we have any credibility left in the NRC and in the company, if we had any trust left in the company and in this government agency that's supposed to protect our health and well being and our environment and our safety, it's gone. It's absolutely gone. And NRC's response in the press is, it was not a reportable incident.

The potential consequences, according to NRC's own documents of that incident, if the cask had dropped into the pool and damaged the pool and drained away the water, there could have been a radioactive inferno in the waste. And thousands to tens of thousands of people could have died downwind. Those are NRC's own numbers. I'm not making this stuff up. So it just is a real betrayal of the public to have on our part, to have taken part in good faith and at that very moment be kept in the dark about something as significant as that. So the outrage we'll try to control to an extent, but it's, it's deep burning at this point in the local community.

What I'd like to address in regards to this proceeding today is radioactive waste, speak of the devil, and reactor accidents. The NRC says in its Nuclear Waste Confidence decision that a repository for commercial irradiated fuel will open by 2025.

And it's appropriate to bring this up because the Bush Administration yesterday introduced a bill to get rid of any remaining impediments to opening Yucca Mountain. That means public health protections and safety regulations, that kind of thing. Just get rid of those. But the problem is that Yucca's in complete disarray. The last date DOE gave for its opening is 2012. They won't give dates anymore. They won't give cost estimates any more. It used to be $60 billion, but they won't give that kind of prediction.

So the state of Nevada's challenging this NRC Waste Confidence decision in Federal court. So how NRC can dismiss this issue at Palisades is just really beyond me, especially given the irony that Palisades license is up in 2011, and that's the very year that Yucca will be full. Will have reached its legal limit long before it opens because there will be that much commercial waste in the country, 63,000 tons of it. Quite a bit of that at Palisades, its fair

share.

So from 2011 to 2031 all waste made at Palisades would be excess to Yucca's capacity. So it would continue to sit at Palisades with nowhere to go, unless a second repository's opened, this time in the east. So would that be in Michigan or Wisconsin perhaps? So it needs to be pointed out that Palisades' current dry cask storage pads are in violation of NRC regulations. We raised this during the NRC licensing proceeding on this extension and were rejected. But our expert witness on this matter is none other than Dr. Ross Landsman from NRC region three, whose job it was to inspect those pads and the casks on them. And he warned NRC since 1993 that the cask close to the lake, the pad close to the lake is in violation of safety regulations, specifically earthquake regulations. If there's an earthquake, the -- could open up, the lake could pour in, and one of those casks or more than one, could end up in the lake under water. And what could that mean? If water infiltrates the cask there's enough fissile material inside to sustain a nuclear chain reaction. So we could have a nuclear reaction in Lake Michigan.

In another scenario, the sand could open up in an earthquake and casks could be buried under

the sand. Overheating could occur. The cask could be damaged. Radioactivity could escape. And it would be a matter of time before it hit the lake. NRC now says in another Orwellian twist that Dr. Landsman's allegations against the newer pad built in 2004, also that it violates earthquake regulations are under review. Those allegations are under review. They have been for years. The incredible thing is that while under review, the storage pad is used for storing waste. More and more waste as time goes on. The cask dangle that happened last October, was a part of that campaign to move dry casks to that newer pad, seven of them.

So we've got two pads at Palisades, both in violation of NRC's safety regulations, and just yesterday we filed an emergency petition to the NRC to enforce its own regulations and stop storing waste on those pads. So the question is, where is Palisades going to store 20 more years worth of waste?

In terms of reactor accidents, again I will point to NRC's own numbers. They haven't updated these since 1982, so of course the number of people has grown in this region, the economy has grown in this region, so these damages from a severe accident at Palisades would be much worse now than what's

given. But NRC calculated that a severe accident and catastrophic radiation release, and this was a 1982 report, a radiation release from Palisades would kill 11,000 people downwind, injure 7,000 people, and do over $50 billion in damages. That's 1982 figures, so if you adjust for inflation, it's over $100 billion now. And of course, if there's a major radiation release from Palisades, that's it for Michigan's tourism, that's it for its agriculture, and that's the reason that our volunteer pro bono citizen's effort to try to stop this 20 year extension has been so determined and will continue to be so at every turn, because we care a lot about the future of this state.

AUDIENCE MEMBER: And our homes and our families.

MR. KAMPS: Amen. And I'd like to raise a point. In the back of the room, there's a summary of the findings of this EIS and one of them referred to, it's a contradiction with NRC's own report. It said historic and archaeological impacts would be small, but right in the beginning of this report it says that they may be small, but could be moderate for historic and archaeologic resources.

And when you read the details in here, NRC actually verifies exactly what we raised last July

28th at this very podium and again during the licensing proceeding, but we got thrown out of that, that Native American sites very well could exist, very likely do exist, NRC is now saying that, at Palisades, but no site survey is going to be required. They can do 20 more years worth of routine radiation releases. If forced to build new dry cask pads that comply with safety regulations, that could be built right on top of a Native American archaeological site, burial grounds, village sites. It's not exactly far fetched when NRC admits that there are 15 such sites within a mile of Palisades or its transmission lines, including one 0.3 miles away, which I believe is the Brandywine in Palisades Park, exactly what we pointed out here.

So my question is, how in the world did we get booted out of the NRC licensing proceeding on that one? But --

MR. CAMERON: Kevin, can I ask you to --

MR. KAMPS: Yes.

MR. CAMERON: -- give a summary of this? Thank you.

MR. KAMPS: Yeah. Instead of five or seven minutes, of course, I could go on for five or seven days about this stuff. But I'm glad that there's a good turnout today and I look forward to

hearing other concerned local citizens.

And the last thing I'll say is NRC said that, you know, this license renewal may be granted but there are other factors out there that may end up, you know, deciding whether or not this place will operate for 20 more years. I'd like to say, yeah, there really is. One would be a severe accident at Palisades that would kind of take care of it right away for all of us.

But another thing is, this coalition of ours, which is 25 group strong including Michigan Environmental Council, the biggest coalition of environmental groups in the state, 75 of them, 200,000 Michigan residents. The coalition's still growing, and we plan on fighting this at every turn and that's the factor that's going to stop this from happening. Thank you.

MR. CAMERON: Okay, thank you. Thank you Kevin. Ken, could we have you come up and talk to us?

MR. RICHARD: Hello. My name is Ken Richards, and I've been a resident of South Haven my whole life.

AUDIENCE MEMBER: We can't hear you.

AUDIENCE MEMBER: Use the mike.

MR. RICHARD: My name is Kenneth Richards,

and I've been a citizen here in South Haven pretty much my whole life. And back when Palisades first went into dry cask storage in the early '90's, we formed a group called Palisades Conversion Group because, basically what they're doing out there is they're boiling water to make electricity and as Ralph Nader said, there's a lot of ways to boil water and make electricity.

So, having worked in two occupations within the nuclear field, laborer for J.A. Jones Construction Company in '71, '72 on the Donald C. Cook Nuclear Power Plant, then at the Palisades Nuclear Power Plant, Decon-Tech for Essential Services Company --

AUDIENCE MEMBER: Louder.

AUDIENCE MEMBER: We can't hear you.

MR. RICHARD: -- during a refueling outage in the '90's, I have seen construction of and then finished plants during tours. The plants then new and impressive, then again many years later aging, much obsolete, often highly contaminated equipment, malfunctioning devices such as the reactor containment hatch door inoperable for some time while I was de-conning when Consumers Energy operated the plant.

Things get old, dilapidated with time

especially when they are neglected. I'm sorry, my glasses, I have to back off to read here. Things get old, dilapidated with time, especially when they are neglected, worn out, under the influence of radiation, outdated or used up such as the Palisades plant's fuel pool, now double racked. Steam generators replaced highly contaminated previous units within their own mortuary on the plant site. Along with approximately 30 V.S.C. 24 and 34 dry storage casks in use for above ground spent fuel assembly storage, also on site.

A cut rate move Consumers Energy Company took when their fuel pool was filled to maximum capacity. Well passed its original design capacity threatening a shut down of the plant. Breaking another promise made when the plant was first built, that no highly contaminated radioactive materials would be on the plant site outside of its high level containment structure. For purposes other than refueling and eventual removal of spent fuel assemblies to a national depository.

After 38 years of operation, Palisades Nuclear Power Plant and its reservation is showing its age and effects of embrittlement. Its pressure reactor vessel being protected with old, many cycled fuel assemblies, a case in point. Years now, no

vessel replacement or further shielding in sight. Or 2007 says the NRC, 2011 say others. 2014 say Palisades' lawyers. This should have been replaced ten years ago. As P.R. spokesman Mark Savage told the local press back in 1993 when the problem surfaced during an interview with the South Haven Daily Tribune. Once they finally got to admit, there was a metal condition called embrittlement affecting the reactor.

One of the biggest complaints from plant critics is the operators have been less than forthcoming when problems surface. Make excuses, rosy predictions they know will never come to pass. Or lie to anyone listening when the information might or will be perceived as contentious, placing public trust in jeopardy.

Much of the same thing can be said of the NRC during these current rounds of scoping meetings concerning the re-licensing endeavor. Long time followers of this issue have seen or heard it all from a very different NRC under past presidential administrations. The difference between now and say, the early 90's, cannot be denied. This is a very business friendly NRC, not public or environmentally friendly.

Yesterday I received my copy of the Generic Environmental Impact Statement for License Renewal of Nuclear Plants Supplement 27 regarding the Palisades Nuclear Power Plant. Reading through both the manual and its cover letters, I see, despite the potential radioactive hazards, the NRC insists the environmental impacts of the Palisades Nuclear Power Plant and the radioactive materials about its reservation is always regarded as small throughout this report. But when I turn to the alternative energy sources, which should be pursued at the Palisades Plant site, their impacts are often referred to as large. Which all considering, they would be, taking into account the enormity of the electrical power the plant puts on the grid, for alternatives to equal out in their current forms at this site.

A rather particular assumption bracketing both the plant and the NRC's positions well, yet ignoring the simple fact that if all the resources used to continue operation of this plant were put into renewables and other forms of electrical generation throughout the state, it would turn the argument on its head.

What my real concern here is the fact that the GEIS report does not take into consideration of

dry cask storage or other highly radioactive contaminated things such as the former steam generators on site. Many would argue the Palisades reservation is already a defacto high level nuclear waste dump. Which to their, our Palisades Conversion Group and my viewing of this issue, a large impact on this fragile lake shore environment. More to the point, potential impact should things not go as planned or designed or promised, which over the last 38 years, time and time again have been broken.

With an additional 20 years worth of above ground dry cask storage, along with other contaminated equipment, which is sure to be replaced should this plant be pushed so far past its original design capacity, which it already has by years now. Counter to the GEIS's insistence that no changes to the plant need to take place in the additional 20 years.

Isn't the reactor head soon to be replaced? In July perhaps? The pressure reactor vessel long in question operated in such a patchwork method since embrittlement was discovered more than ten years ago. How long before it's replaced? Annealiated as once promised in court or a neutron thermal shield installed? Or the reactor replaced?

And yes, dry cask storage casks piling up

on site. I'm sure we'll all hear about Yucca Mountain or the Goshutes, Skull Valley Indian Reservation taking all of this off our hands for the umpteenth time in the last 20 years. There are now over 20 to 30 dry casks on site. Will anyone here give us an exact number? Or are you going to just dodge the question again, insisting it's a Federal issue, none of this re-licensing businesses concern.

This is a local community concern for we will have to live with and care take all of this waste for generations to come. In '93 we were told these experimental, cut-rate dry storage casks would be gone in '98, time and time again by Mark Savage, the plant spokesman.

Now we're told by the NRC, they're licensed to store --

MR. CAMERON: Ken, I'm going to have to, I'm going to have to ask you to summarize. I'm sorry, Ken, we can attach your full statement to the record.

AUDIENCE MEMBER: Go on for years.

MR. RICHARD: Well, you know, you literally could go on for years because this thing has and it keeps piling up a good record for anybody that really takes a look at it.

MR. CAMERON: Okay. Thank you. Thank you

very much. Is Mr. Henkel, is it --

MR. RICHARD: Do I hand these to him?

MR. CAMERON: Yes. Why don't you do that and we'll make sure that we get a copy of them as a formal comment for our purposes. But they will be attached to the transcript. So Mr. Henkel, do you want to still talk to us?

MR. HENKEL: My name is Don Henkel. I've had a cottage at Palisades Park Country Club for about 40 years. We're probably about the closest of anybody to the nuclear power plant. Before 9/11 I had many opportunities to walk in front of the power plant, to enjoy the beach area, et cetera. Our park is 100 years old so, both our cottage and myself and the park have preceded the nuclear power plant by a long period of time.

I am convinced that the way of producing electrical power in this country needs a great deal of attention. There's no doubt in my mind that coal burning and so on adds a great deal of pollutants that nuclear energy does not incur. But that's as long as the genie is in the bottle.

And for many years now I've heard on Saturday morning the sirens go off and this rather metered voice, terrible voice comes over, this is a

test, this is only a test. And then at the end of that there's a cow-lunk, like somebody's dropped a hammer or something like that on the floor. And I don't think too much about it because I've experienced this for many, many years. But upon occasion I think, well, what if it were not a test. And that's of course when the genie comes out of the bottle.

One time I was sitting on the deck of my cottage, which is right on the shores of Lake Michigan, a stone's throw from the, from the plant and of course, this was after 9/11 and a no-fly zone was instituted. And all of a sudden a Japanese zero comes zooming down the lake shore there about 50 feet over the water. It of course flew right over the plant on its way up to an old plane show someplace up north along Michigan.

And I thought to myself well, how easy it would be for somebody, a plane to come on, and you know, I was really surprised that the accident report didn't include sabotage and other things along that line. So that's, that's kind of a problem. I'm a boater, and I boat past the plant many times from South Haven down to Palisades Park where the cottage is. And now it's not a no fly zone, but a no boat zone. The parameters of the property are 3/4's of a

mile. And I looked at my boat and I said, boy, those casks are so easy. They're right,, right over there. So I think that somehow or another we need to entrust the issues of, of license renewal for just 20 years because we're really looking, according to what I read, 10,000 years down the pike.

And sooner or later human beings probably are going to make some errors. And with a gas-fired plant, right across the road you can -- facilities, as the Palisades Nuclear Power Plant that I kind of wondered, why in the world don't we go to a plant already on line there, already ready to deliver, as opposed to the aging Palisades Nuclear Power Plant. Thank you very much.

MR. CAMERON: Okay. Thank you Mr. Henkel. I'll, I am going to ask Viktoria Mitlyng who is one of our Public Affairs Officers from Region three to just summarize what the NRC's stance is, I guess, on the crane drop. And do you want to talk to us for a little bit up there Viktoria?

MS. MITLYNG: Good afternoon everyone. Can you hear me? Yes? My name is Viktoria Mitlyng, and I'm Public Affairs Officer for the NRC. From my accent you could probably tell I'm not a native to this country. Originally, I'm from Kiev which is

about 40 miles from Chernobyl.

One of the reasons that I work for Nuclear Regulatory Commission is because I can stand here and tell you what happened. In my former country, I couldn't do that. So when Kevin was talking about the NRC losing credibility because the public wasn't informed about the crane incident, it got me a little riled. My job is not to get riled, but I was.

The inspection reports that include information about all the findings at the plant are publicly available. There was so much information in our inspection reports produced by Resident Inspectors, by Specialists, that it is impossible at a meeting to come for us and give you a summary of what happened. It's not an expectation we can meet. Other we literally would spend our time sitting here and telling you, telling you what happened, or our Resident Inspectors instead of inspecting the plant. That's not possible.

So I'm hoping that if you're interested in what's going on at the plant, you can take a look at the reports that are publicly available. You can call me anytime and I will let you know what is going on and any information that you want provided about what the NRC is doing.

Now about the cask. I'm not going take long. I'm just going to say that the cask was secured in place. It was not an issue of the cask being about to get dropped. It was a procedural error. And that's why the NRC wrote it up, is because the operators were not supposed to manipulate the grade according to their own procedures, and they didn't. I have a picture of the cask if anybody's interested in taking a look at it. And it is not about to drop, to drop and cause a nuclear disaster.

So the very real issues that people are bringing up here that we want to hear about, however, there are certain things that I really wanted to respond to and one of them is public confidence and openness. The information is out there. And our job is to protect public health and safety, and we take it very seriously. I take it seriously for personal reasons, because, you know, half of my family is gone from leukemia, cancer, et cetera. So I would not stand here and tell you anything that's not true because it would be like, you know, shooting myself. There would be no reason for me to be in this country. And people I work with I trust. So that's what I wanted to say. If you want to talk to me further or you want to hear Russian jokes, come and talk to me

after the meeting.

MR. CAMERON: Okay. I don't want to get to, I don't want to get into a long running discussion because we have to hear from, from people on this. Okay? We heard Kevin's viewpoint. We heard from the NRC, which I thought was important on this recent event to hear that.

MR. KAMPS: I just got a quote from the very document that Viktoria encouraged me to read.

MR. CAMERON: Okay.

MR. KAMPS: That -- from the NRC. It took several months to get, but I've got it right here. I'd love to read from it.

MR. CAMERON: Well, let's go through the rest of these people, Kevin, and hear from them. And Kevin is here with a report from the NRC. If people want --

MR. KAMPS: Yeah, I'll just read it real quick. It'll take me 10 seconds. This is an NRC inspection report that Viktoria encouraged me to read.

MR. CAMERON: Kevin, if you, and this, again, is something that is, you know, we don't know what the context is. If you have 10 seconds, let's go 10 seconds from this. I just want to keep --

MR. KAMPS: What is the context? The

context is the very incident she just described.

MR. CAMERON: Go ahead.

MR. KAMPS: The NRC Quarterly Inspection Report.

MR. CAMERON: Okay.

MR. KAMPS: Coming out many months after the incident occurred, so we're just supposed to wait I guess. If we wait long enough, that's okay.

MR. CAMERON: Okay. Kevin, go ahead.

MR. KAMPS: Well, got this through 4F everybody. This is the NRC inspectors writing. Therefore, the on scene inspectors concluded that working outside the bounds of the approved work package and manipulating the brake release on the crane represented an increase in the risk of a load drop, the load being the fully loaded cask on the crane. This increase in risk is directly associated with the reactor safety cornerstone objective of the spent fuel cooling system as a radiological barrier. What does that mean? The pool water could have drained away. What happens then? The waste catches on fire. What happens then?

MR. CAMERON: Kevin, Kevin, you read, you read from that. Okay? And I don't, you know, obviously it is an important issue. The report, you

guys can do this later, okay? The report is there for people to read, and Kevin read from one part of it. Viktoria gave a summary of it, okay? And John who's our resident, I don't know if there's a bottom line you want to add to this, but I just want to conclude it.

MR. ELLEGOOD: Yeah, I'd like to conclude this, and we can talk afterwards. We wrote that because you cannot up and manipulate equipment without the proper procedures in place, without the right management oversight understanding what you're doing, without understanding the consequences of what you're doing. In this case, the worker went up there. Prior to going up there he had been briefed. It had been discussed. I have been in the meetings that they would not manipulate any components on the crane. It was to be an inspection of the crane to understand exactly why the brake engaged, understand if there was any damage at all done to the crane, and understand what they needed to do to proceed to lower the load safely.

The individual up there in communication with an off site vendor decided to manipulate components of the crane and he simply should not have. It's very tough to quantify the change in risk when

you've got an individual going up there. I have no idea how far he might have gone, how much he might have slipped. I judge that was an increase in risk. However, at all times there were two brakes fully engaged on that crane. Either one of those could support the full load. Looking through the documentation as to brake failures in cranes, it's about one every 10,000 events for a single brake, probably more than that. Therefore, with two brakes you've figured out is about one to the minus eight. With the guy manipulating it, there's an increase in risk. I don't know exactly how much. Maybe a couple of words of magnitude. One in a million chance. We took it seriously. We wrote a non-cited violation, and we remained observant of the licensee's activities in repairing cranes, maintaining cranes, and in crane operations.

MR. CAMERON: Okay. Thank you very much John, at the plant. And we're going to go back to license renewal now, and we know that there's concerns about these issues so it's important to discuss them. We're going to go to Mr. Dal Monte right now, and then to Mr. Mitchell, and then to Michael Martin. Mr. Dal Monte, do you want to come up? All right.

MR. DAL MONTE: Good afternoon. I am a

resident of the South Haven area. I, we select this area for the end of our life. So I retired. I was working in Chicago, and then I came here. And now I have a little time to go overseas. My profession is an Electrical Engineer. I am from Illinois, and today we covered some of my concerns regarding the operating license renewal of Palisades Nuclear Power Plant.

My first concern, and more important I think, is in relation to the spent fuel. Everybody know that right now the spent fuel is stored outside, next to the power plant. So this keeps accumulating and there is a possibility of, theoretically send it to a central, national central depository. But it was impossible in 40 years to obtain or to realize this central depository. And the reason for that is not political. It's not because people are not doing their work. It's just because they, they waste half their -- long, long time, I mean. You have to keep it under control, under storage for at least 10,000 years. So nobody can guarantee that even the more stable place can guarantee that. So this is, if we continue doing that we are going to keep this material in that place forever. That's what we have to understand. I mean, this is a fact.

What, what, why we are scared? Because we

are increasing the possibilities of an uncontrolled releases of radioactive material. The plant has a bigger accident and can have uncontrolled releases, but this other thing we're allowing here can also prove to have accidents by sabotage, by error, human error, by many things that, one important thing in life is imagination. So with a little bit of imagination, we, we can figure out that this is not way to go. It is not the way to go.

Consequently, so I will leave this point for the time being and I continue that in this situation my recommendation is that, I request that no approval of operating license renewal be given unless all existing spent fuel is removed from the site and sent to a national central depository.

My second concern is regarding the equipment refurbishing, refurbishing of our equipment. I have low opinions. A plant with 40 years is ready for a good refurbishing. You can tell that, you have done a wonderful job, but I don't believe it. And your report, the NRC is saying that they considered, I don't know, I don't think, this is requested by the licensee, but the NRC I don't know really, what he's, he's going to do, but it doesn't look like he's going to request --

MR. CAMERON: Mr. Dal Monte, you've raised two very important points, but I have to ask you to summarize now. Do you have another important point to tell us?

MR. DAL MONTE: Yeah.

MR. CAMERON: And if you could just state that and then we'll have to go on --

MR. DAL MONTE: Sure.

MR. CAMERON: -- to the next person. Thank you.

MR. DAL MONTE: Okay. And my second concern is related a little with the first. The analogy that is used at Palisade has been following -- first. Through the use of a large amount of spent fuel waste, which is highly radioactive and this toxicity for a long time, 10,000 years.

Second, the waste contains plutonium which if enriched could be used in the manufacture of atomic bombs. Third, it is a low efficient use of the fuel, uranium. If continuing with this old technology, the amount of the available uranium in nature could be exhausted in a short time.

The Nuclear Power Industry is in the process of producing a new generation of reactors. General Electric Company, Western Electric Company,

Westinghouse Electric Company are doing that using full fuel recycling. These reactors that could be approved by 2015 will not have the above mentioned drawbacks of the old reactor technology.

The spent fuel, the spent fuel in this reactors would be reduced in amount and would require shorter time in storage, 400 years. Therefore a Central depository could be readily found. It would use the energy content in the fuel much more efficiently. The uranium available in nature could last for many centuries. The plutonium in the waste is not usable for manufacture of weapons.

MR. CAMERON: Thank you. Mr. Dal Monte, I'm going to have to ask you to --

MR. DAL MONTE: But, I, I would just to say in regard to this concern, I recommend that any approval of operating license renewal of existing nuclear plants be in moratorium until the year 2015. Thank you for your, for your time.

MR. CAMERON: Thank you Mr. Dal Monte. Thank you very much. Do we have a Mr. Mitchell? Lewis Mitchell? Mr. Mitchell, oops, are you okay? All right. This is Mr. Lewis Mitchell.

MR. MITCHELL: Thank you.

MR. CAMERON: Your welcome.

MR. MITCHELL: My name is Lewis Mitchell. I'm a native of South Haven. We were gone for about 30 years and moved back. I'm retired from this, weekly newspaper publisher. We sold our paper in Illinois and moved back home and found a place out by Bangor, which is directly east of Palisade plant.

I knew about the plant when we bought the place. I wasn't concerned a bit about the plant being there, and I'm still not concerned about it. I believe that nuclear power is one of the best answers we've got to getting power in this country. With all of these other things that have been named, they either don't work fully or they're more expensive and they're harder on the environment. I personally am in favor of the nuclear power. And by the way, I'm also one that says thank god for the atomic bomb, because I was in the 77th infantry division and I saw the coast of Japan that we were supposed to hit. And the reason, one of the reasons I'm here today is because they dropped that bomb. And I'm not the least bit ashamed to say so.

Heard a lot of ifs today. If this, if that, if the other thing, and having been in the newspaper business, I'm a little more inclined to rely on some facts. Not if this happens or if that

happens. I've never been in the plant. I've heard people talk about the condition of it. I've never been out there, so I do not know anything about the condition of that plant, whether it's good, bad, brittle or whatever. I'll leave that up to the people that know, the people that are experts. I think the NRC has a whole staff of experts and I'd rather trust them than somebody that's not on the site making inspections and so forth.

Talk about this crane hanging up. I've been around machinery enough to know that there's things like that do happen, and that things can be secured and there's no danger from them.

And this, heard a lot about alternate forms of generating electricity. And I've read quite a bit about it and nothing I have read has convinced me there is a better way. I'm local, sometimes a lot of these people from far away come in and tell us how we're supposed to do things. I don't particularly appreciate that either. In my opinion, Palisades is safe and I want to see that license renewed.

MR. CAMERON: Okay. Thank you very much Mr. Mitchell. Thank you. We're going to go to Mr. Martin, and then Mr. Norm Knight and Mr. Milan. Mr. Martin?

MR. MARTIN: Mark Savage if he was still here can well attest that I've been a gadfly at Palisades for 20 years now. And, thank you, I don't plan to be for another 20. It astounds me that this proceeding can go on like a runaway train in light of the fact that the industry has been allowed to run for 50 years with no high level waste facility, guaranteed or otherwise. Different things about Yucca Mountain are interesting in that they have gone on and approved almost everything that the opponents have suggested, seismic, water leaking into the -- underneath it, and other things. And then most recently, we hear that the original loading of it, if it were carried out would cause overheating and make --, if they were to use it, to have that capacity. And if it had opened 10 years ago when it was supposed to, that capacity wouldn't have taken care of what waste we had at that point anyway. So now it's, maybe a quarter of what we have, if they were to use it. And if they don't use it and the Indian Reservation is brought up as an alternative, it's, it will be interesting to see how the EIS has arranged for that. Maybe there's an -- under it like the Mississippi River for all we know. That sure would be a mess.

And the next part of what I have to say,

it's interesting when you go west on the old Route 66 area, we see all the old barns painted with the taverns, and Missouri taverns and Arkansas, and so forth. And it seems back in the early 70's, Oklahoma Power Company decided they were going nuclear. And when they did this, there was a local woman a few miles away who decided that this would not happen and she decided to intervene. She mortgaged her farm, sold her nursing home, and we had quite an interesting intervention on that.

And at the time I worked for a newsman who had been a part of the Manhattan project and went around the country with a brief case locked to his wrist. Had a lot of secrets in it, I imagine. And after that he became an oil well person, drilled a lot of wells. And at the time I was working with him during the intervention and on his newspaper, he candidly admitted to me that he had drilled a well on the side of this Black Fox Nuclear Plant that they wanted to install just east of Tulsa. And when he drilled this well, it went so far until all of a sudden they were drilling into nothing. And they kept adding more divisions to the well, and it still struck nothing. And finally, they just hooked the drill point to a cable and they never did find bottom there.

That was where the August nuclear industry was going to put its nuclear plant.

And you've heard of these places where the ground gives away in Florida and stuff. Here's one that could have taken the whole nuclear plant. And as it finally turned out the plant was turned down. They didn't really need that power to begin with. And it's kind of a situation where we're talking about that if we conserved a little bit, we could do without Palisades as well. Thank you.

MR. CAMERON: Okay. Thank you Mr. Martin. Is Mr. Knight here? Yes, Mr. Knight.

MR. KNIGHT: Thank you.

MR. CAMERON: You're welcome.

MR. KNIGHT: I am Norm Knight. I'm from Kalamazoo, Michigan. I've probably been involved with nuclear power more than anybody else in this room. I was involved with the first, dropping the first bomb on Okinawa, not on Okinawa, but from Okinawa to Hiroshima, and three days later on the second one over in Nagasaki. So that I knew these pilots, Mr. Tibbets and Mr. Sweeney on a personal basis and was involved with that for some time.

However, I was released from the Marine Corps and was involved with the studying about nuclear

power about that time, and took my training at Edgewood Arsenal in Maryland under a fellow by the name of -- Joe Stillwell, the general from the far east. Since that time I've been involved with pharmaceuticals. I was an Upjohn person. I'm a chemist involved with chemistry. And I can remember one of our -- tests for sodium was to go ahead and mix it with uranium oxide. And then you wait to sodium urinate. Well, that was okay, fine.

But I've been a proponent, and I'd like to thank Mr. Mark Savage for the wonderful job that he's done over there at Palisades. And in the winter time, I also winter out in Arizona. At that point I'm about 20 miles from the Palo Verde Nuclear Power Plant, which is the largest one in the country. It supplies most of the electricity for Phoenix. I have some pictures which I forwarded to Mark Savage, and have some of them here, which involves replacement of the steam generators. These came up, these were too large to come through the Panama Canal, so they shipped them around South America and up through Mexico, and from there they were transported by fazoli trains up to the Palo Verde Nuclear Power Plant. And I still think nuclear power is the way to go. I think today, approximately 70 percent of the power that's

distributed in France is by nuclear power. Why we can't go ahead and listen to these people even if we can't speak French. But, I would like to thank everybody here. I enjoyed your program very much. And I'm a proponent of nuclear power, still. Thank you.

MR. CAMERON: Okay. Thank you Mr. Knight. Mr. Milan? Corinne? Can you just point that at you?

MS. CAREY: Great. We'll do that. In fact, while the other people involved in my presentation come

up --

AUDIENCE MEMBER: Can't hear you.

MS. CAREY: Oh, well, I, just a minute.

MR. CAMERON: And Corinne, it's fine to do a little theater, but we do need to watch the time.

MS. CAREY: Yeah. Oh, yes. We will. Yes.

MR. CAMERON: All right.

MS. CAREY: If the other people involved in my presentation will come up please. The Raging Grannies? And we've invited a few grandpa's in the meantime also.

MR. CAMERON: All right.

MS. CAREY: Yeah.

MR. CAMERON: Here we go.

MS. CAREY: All right. Okay. Now, we do want to say that one of the important points, and the word I haven't heard, is sustainable. We have not talked sustainable power and energy. And in the 21st century and beyond, we need sustainable power, not the fossil fuel which nuclear is also. There's a limit to uranium involved, so it's about time that we began to think for our great great grandchildren. And we have, anybody else? This little guy's going to help us here. This is an adaptation of the Raging Grannies presentations that they have given all across the country in various ways.

Oh, give me a home, where the rivers don't foam, and the squirrels and the chipmunks can play. Where lakes all have fish, you can put on your dish, and the skies are not smoggy and gray. Home, home, on the earth, you're beauty's beginning to fade. We've got to act fast, our -- won't last, our home you just can't throw away.

There's nuclear waste, are inclined to escape, and into the ground they are dumped. We don't want PCB's, in the birds and the bees, and dioxins on our babies rumps.

Oh, give me a home, safe inside the ozone,

there is danger in those cosmic rays. Oceans up to our necks, from the greenhouse effect, please don't wash all this beauty away.

And I know that's a silly, superfluous approach. Thank you. I do want to encourage people to find out that radioactive releases from nuclear power plants in the Great Lakes basin, what are the dangers. There are copies of this at that table, and other things. If there's more than one, you are free to take it.

On this table are some other things also. In fact, this gives you quite an interesting map. Some other things, including those thick books, like the one I got from Bruce. Now Bruce is the nuclear facility, I've heard it's the world's biggest. They have, is it nine or 11, reactors in their complex, 50 miles from Michigan. Right across from the thumb on the little pinky finger that sticks out of Canada there. And that is their Yucca Mountain in progress.

Luckily, the wind doesn't very often blow to, on us from the east, so we usually don't concern ourselves with the fact that there, we could be downwind from that. We are downwind. I'm from Grand Rapids, and we are downwind from Palisades obviously. 50 miles was the intervener zone. It goes through

Jennison, so I wasn't able to be one of the interveners. I'm another 10 miles in, but that's not far enough if a dangle drops, or any of the kinds of things that can happen in a Chernobyl situation. I would suggest that particularly you pick up one of these. It gives you several interesting articles, including the one that's current about the British report on finding, they call it the Queen's --. Depleted uranium measured in Britain's atmosphere. If it's measured in Britain's, what about the U.S. Who's going to do that? Who makes those studies? Who's going to pay for that? The taxpayers? The nuclear plants? The NRC? How do we know what's going on? I understand one of the problems in our intervener court, court suit is that we don't have specific data from Palisades. Well, who's going to pay for that? Taxpayers? Nuclear plants? Not likely.

Another thing back there at this table is the summary report. And not only is it several pages long, it's based upon U.S. Nuclear Regulatory Commission Freedom of Information Act response documents, and so on. But you can have your very own picture of the cask. So it's back there on the top, stack back there.

I was, I have an encore ready if you'd

like.

MR. CAMERON: I heard, I heard no. I heard yes. But thank you. Thank you very much Corinne. Kathryn, Kathryn Barnes? And we're running a little bit late over here, but we'll be done soon.

MS. BARNES: I want to say no matter where you stand on the nuclear issue, if you think Palisades is great and you like nuclear energy, or if you're opposed to it, we're all in the same boat, all of us that live here in this area. And that is that. What happens there is going to affect us. It's not only going to affect us, but it's going to affect our children's children's children. You might be the last person in your lineage if that thing blows because you'll never have any, any offspring with normal DNA, if at all, you survive it. If at all, that you can reproduce.

What happened in Chernobyl was disastrous. Kevin Kamps, who is one of my good friends, brought children from Chernobyl over here. I worked on the U.S., U.S.S.R. Reconciliation Project to stop the nuclearization and the cold war, and we, we were successful. And when I see these children from Chernobyl whose beautiful souls with their sunken eyes, and they're severely handicapped, and I see

American kids who are bright and bouncing around and having fun, Corinne and I ran the Children's Peace Camp and we had American children and Chernobyl kids. The, the contrast between the children was so immense, yet they're all innocent beautiful little children. The only difference is Chernobyl blew and Palisades hasn't yet.

And I am convinced that because it's of the geology, the problematic problems, the history, the track record at Palisades, the possibility of terrorism, the probability of increased nuclear waste problems, that it's only a matter of time something's going to happen there. And I don't think the risk is worth it. Even though right now were in that, were in a crossroads. And you can take this day and live in this day forever. You could live here. But if after a disaster, you couldn't.

And there's so much to lose. It's not just your lives, your children's lives and the possibility of grandchildren, great grandchildren, but it's a life in this area. It's the soil. It's our relationship with Canada. Do you think Canada would every forgive us for the fall out? Do you think that we could ever restore the Great Lakes, our water table, if something happened there? And the, and the,

the mounds of nuclear waste got into the Great Lakes that's stored there? I don't think you can get it back people. Not with radiation, and not with the huge contamination that an accident would cause.

And it was only built for a certain amount of time. The engineers that designed that place built it, they thought it would last that long, and the licensing is, is beyond that point. I believe that so far these band-aids have, people have been very lucky that we haven't had accidents with stuck valves, leaking coolant, all accidents that have happened at Palisades over and over again, they've always been able to fix it in time.

I know someone that worked inside of Palisades. He said he wouldn't work in the Michigan anymore. He works in another state. I won't mention his name. I won't mention what state he works at, although the NRC and other people have tried to find out. He told me that Palisades is the most likely to blow of all the nuclear reactors in the United States. He said it's a well known fact in the nuclear industry. And I said well why, you know, like at DC Cook I know that for ten years they operated with a cooling system that wouldn't function in the case of a melt down. I said are they trying to cover

something up at Palisades? He says no, it's just the way they run things. He says they don't report things. He says there's so much that goes on that people don't know about. He says the NRC doesn't know about it, and I don't know what he was talking about. I tried to get more information out of him. He wouldn't talk, but that bothers me.

And I think that a lot people are in the dark and I'm one of them. And I come here. I take time out of my life, and like Kevin and other people, we're doing this without any monetary reward. We're using our own gas money which is expensive and everything else, and I hope somehow that something I'm saying makes a difference, you know. That something is going, that somehow that something I say or write or do is going to forestall a big disaster. And I don't know if it, if it means anything at all. I don't know if everything I say is futile, if anybody's listening, if anybody cares. But I know that if it blew, then your little plant that's full of holes, if it blew, that people would understand what I'm talking about because you can't get it back. An acceptable risk, as far as you're dealing with something this big, if you can shut it down, go to natural gas, Consumers Energy is already --, then do it. Why not.

MR. CAMERON: Okay. Thank you Kathryn. We have two final speakers. Alice Hirt, could you join us, and then we're going to go to Paul Harden. And then we're going to ask Rani to just adjourn the meeting. Here's Alice Hirt.

MS. HIRT: Thank you. I'm going to be very brief. I, responding I think to David Miller or whoever said that the consequences of the daily releases into the environment of radioactive nuclides is small, I don't know what small means. I know cells are small. And I know that the newest report by the National Academy of Sciences has said that there is no safe threshold for radiation. Not one bit of it. So how do you determine, this is new information. You didn't have that information when you licensed this plant 40 years ago. So this should be considered in your re-licensing process. It's new information. Are you talking about a small person, or a small cell, you know? I'm a small person and I don't want one of my small cells injured. So I think that information needs to be considered in this license application. So please look at that information.

Now the other thing is the issue of embrittlement, and the question was have you considered an accident based on the fact that

Palisades is quite embrittled. When Palisades was licensed 40 years ago, the issue of embrittlement I don't think was considered because you didn't really know that that's what was happening or would happen. So in my understanding, this is, if there is an accident, the result, as a result of embrittlement, it would be a beyond design accident, if that's the correct terminology. So that's an accident that you're not considering, but that's new information since this plant was re-licensed 40 years ago. So I think you need to look at what would happen if there is an accident as a result of embrittlement, since you didn't know that when you licensed this plant 40 years ago.

My last thing, in yesterday's New York Times, I don't know if you all saw it, but maybe some of you from the NRC might get red ears when you read this article, because it is, after consulting with the industry, the Nuclear Regulatory Commission weakened security regulations it had proposed for reactors, government auditors said in a report to be released Tuesday. This is a GAO report. The audits said the process, quote, created the appearance that the changes were made based on what the industry considered reasonable and feasible, feasible to defend

against rather than assessment of the terrorist threat itself. The report, by the Government Accounting Office, stopped short of saying that the Commission had made changes, quote, based solely on industry views. This cozy relationship between the NRC and the industry is what really bothers all of us.

MR. CAMERON: Okay. Thank you Alice. I would just ask Juan if you want to talk to Alice afterwards about the embrittlement issue. And Dave, I think the Draft Environmental Impact Statement might address the -- 7 report that Alice mentioned to us. So if you could talk to her about that.

And finally, I think Corinne or someone put a copy of a Wednesday New York Times article on the table over there that talks about a hearing, a Congressional hearing yesterday that provides further amplification on what you mentioned. Okay.

Let's go to our final speaker. This is Mr. Paul Harden, who's the site Vice President at Palisades.

MR. HARDEN: As Chip mentioned, my name is Paul Harden. I'm the site Vice President at Palisades. I'm also a Nuclear Engineer, so I happen to understand the topics and the issues and discussion here very, very well as we discuss them.

First, I'd like to focus my comments on the purpose of the meeting, the Draft Supplemental Environmental Impact Statement. And I'd like to commend the NRC on the scope and depth of the report. It's very comprehensive and a lot went into it. A lot of views have gone into it. Nuclear Management Company will also have comments on it. Our preliminary review showed, has come up with no issues of significance, but as we complete the review we will also submit our comments.

Before I address a few of the facts, I'd like to talk about regarding environmental impact to operating the plant, I'd first like to state that not everyone in the public is ever going to agree on whether nuclear power is a good or bad thing. Not everyone in the public is ever going to agree whether the method that this country has chosen to store fuel is a good or bad thing. The diversity of the people, the diversity of the views, and our freedom to express them, that's part of what makes this country great. So I think it's okay that there are differing views out there. But I would like to address a few facts regarding the environmental impact of operating Palisades Nuclear Plant.

Environmental responsibility is built in

to the design, the operation, the management and the regulation of nuclear power plants. There are multiple redundancies. There are multiple levels of safety. There's defense in depth, and there's a regulatory agency that's very, very intrusive into how we do business to insure that environmental responsibility.

The employees at the plant, they're also residents. We raise our children, my baby in the back of the room, here in South Haven and we have a vested interest in also insuring that the plant is environmentally responsible. We continuously monitor radiation levels at the plant. We continuously monitor the release paths from the plant. That's not all we do. We go on to verify it. We sample soil. We sample fruits. We sample fish. We sample water from surrounding areas as an additional validation that we are maintaining the environment safe.

And there are multiple regulatory agencies, not just the Nuclear Regulatory Commission. There's Environmental Protection Agency, and there's the Michigan Department of Environmental Quality all of which enforce strict regulations and review what we do at the Palisades Nuclear Plant to insure that we are safe to the environment.

Consumers Energy and Nuclear Management Company are convinced that Palisades can be operated safely with minimal impact or adverse impact to the environment. That's why we're investing millions of dollars in the plant in upgrading the plant and the equipment today as we proceed forward with our license renewal process.

We're satisfied the continued operation of this plant is an environmentally responsible decision, and I'm also quite gratified that the Draft Supplemental Environmental Impact Statement has come to that conclusion. And we look forward to a long and prosperous operation and a very safe and environmentally sound manner at the Palisades Nuclear Plant.

MR. CAMERON: Okay. Thank you very much Mr. Harden. I'm going to ask Rani Franovich to just --

MS. FRANOVICH: Are there any more comments?

MR. CAMERON: No.

MS. FRANOVICH: Okay.

MR. CAMERON: We're good.

MS. FRANOVICH: I just wanted to again thank you all for coming to our meeting. I mentioned

at the beginning of the meeting, and I really mean it. Your comments, your participation is really important to our process. It helps us to insure that we didn't miss anything. So thank you for your input.

As you came in this afternoon, you may have received an NRC Public Meeting Feedback form. They're outside the meeting room. If you have any suggestions about how we can conduct our meetings better in the future, ways that we might be able to provide information that, that works better from your perspective, we'd certainly be interested in hearing your views. So please fill out one of those forms. The postage is pre-paid. You can mail it into the NRC, or you can just leave it with us. And I also wanted to remind everyone that we are accepting public comments on our draft sites until May 18th. Bo Pham, the Project Manager for the environmental review is the point of contact. So please let Bo know if as you read the document or as you think of new comments that you want to provide to us, please do so. You have another several weeks, actually I guess it's about six weeks to do that. And again, appreciate the time that you've invested in being with us today at this meeting. Thank you.

MR. CAMERON: Thank you.

(Whereupon the public meeting was concluded at 4:50 p.m.)