UNITED STATES OF AMERICA

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NUCLEAR REGULATORY COMMISSION

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PALISADES SCOPING MEETING

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THURSDAY

JULY 28TH, 2005

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SOUTH HAVEN, MICHIGAN

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The above-entitled matter came on for Public Meeting pursuant to Notice before Chip Cameron, Facilitator, at 125 Veterans Highway, South Haven, Michigan, on Thursday, July 28th, 2005, at 1:33 p.m.

PRESENT:

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

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

2 (1:33 P.M.)

3 MR. CAMERON: We have a couple more people coming in now
4 so we'll just let them get in their seats and we'll start today's
5 meeting.

6 Well, good afternoon, everyone.

7 My name is Chip Cameron and I'm the special counsel for
8 public liaison at the Nuclear Regulatory Commission which we'll be
9 referring to by the acronym NRC today. And we're trying to keep the
10 acronyms at a minimum. But we will be using that one.

11 And I just wanted to welcome you to our public meeting
12 today.

13 And the subject of the meeting today is the NRC's
14 environmental review that we conduct on an application that we
15 received from the Nuclear Management Corporation to renew the license
16 to operate the Palisades Nuclear Plant.

17 And it's my pleasure to serve as your facilitator today.
18 And in that role I'll try to help all of you to have a productive
19 meeting.

20 I just want to go over a couple of points on the meeting
21 process before we get to the substance of the discussion today. And
22 I'd like to tell you about the format for the meeting, the ground
23 rules and also introduce the NRC speakers who are going to give a
24 couple of brief presentations to you.

25 In terms of the format for the meeting basically we're

1 going to do this in two parts. And the first part is for us to
2 provide you with some background, the information on the NRC's license
3 renewal process. What do we look at when we evaluate an application
4 to renew a reactor operating license. And we'll have two brief
5 presentations for you on that.
6 And then we'll have some questions to make sure that
7 we've explained everything clearly about that.
8 And then after questions we're going to go to the second
9 part of the meeting which is an opportunity for you to talk to us to
10 give us your advice, recommendations, concerns about license renewal
11 but specifically about the environmental aspects of license renewal.
12 And the NRC staff will be explaining more about that in a minute.
13 We are taking written comments on these issues but I
14 just want to assure you that anything that you say today will be, will
15 count as much as a written comment. And we are taking a record of
16 that.
17 We have Mr. Stuart Karoubas here who is our
18 stenographer. And there will be a transcript of the meeting and that
19 will be available to anyone who wants to get a copy of that
20 transcript. And it's our record also of what happened here today.
21 In terms of ground rules. As I mentioned we are going
22 to go out to you for questions after the presentations. If you have a
23 question just signal me and I'll bring you this little microphone.
24 And just introduce yourself to us and the affiliation. Tell us your
25 affiliation if appropriate. And we'll try to, try to answer your

1 question.

2 After we go through some questions we'll move on to the

3 comment section. I would just ask that during the question period

4 that only one person speak at a time. For the most important reason

5 so that we can give that person our full attention whomever has the

6 floor.

7 But also so that Stuart can get a clear transcript and

8 know who is speaking.

9 I would ask you to be concise in your questions. And it

10 is an opportunity for questions. I know that all of us usually have a

11 comment wrapped up in that question and that's just part of the

12 business. But if you could just try to save your comments for the

13 comment part of the meeting then we can get everybody's question.

14 When we do go to comments there are some yellow cards

15 that we ask people to fill out if they want to speak and if you're

16 seized by the urge to comment and you haven't filled out a yellow card

17 that's fine, just tell me that you want to speak. We'll get you up to

18 the podium to talk to us. And to all of us the NRC.

19 And I think we're probably going to have to have a five

20 to seven minute limit on comments today to make sure that everybody

21 gets a chance to talk. And I'll gently remind you of that as we go

22 through the comments.

23 And usually five minutes is enough time for people to

24 summarize and it accomplishes two important things. One is it alerts

25 us to issues that we have to start working on and thinking about right

1 away. It gives us an opportunity to talk to you about those issues
2 after the meeting.
3 And secondly it tells everybody else in the audience
4 what some of the concerns are that people might have or
5 recommendations that people might have about our review of this
6 license renewal application.
7 In terms of our speakers today first of all you're going
8 to hear from Ms. Rani Franovich, okay, who is right here, Rani. And
9 she is going to formally welcome you and tell you some important facts
10 about the license renewal process.
11 Rani is the chief of the environmental group, the review
12 section for these license renewal applications as well as other
13 reactor licensing actions that we take. Rani and her staff do the
14 environmental review work on those applications.
15 And she has a wide variety of experience. She's been
16 with the NRC for 14 years. She was a resident inspector. These are
17 NRC employees that we actually have stationed at the facilities. And
18 we'll introduce you to the Palisades residents in a little bit.
19 But Rani has served as a resident. She's been a project
20 manager on the safety review for license renewal applications. I
21 think for the Catawba and the McGuire plant and Rani was a resident
22 inspector at the Catawba Plant in South Carolina.
23 She has also been the enforcement coordinator for our
24 reactor office. And she's just assumed this position as chief of the
25 environmental section.

1 In terms of education she has a Bachelor's Degree in
2 Psychology from Virginia Tech and a Master's Degree in Industrial and
3 Systems Engineering from Virginia Tech.
4 And then we're going to go to, let's see on Rani's staff
5 we have Mr. Robert Schaaf, who is right here. And Bob is the project
6 manager for conducting the environmental review on the Palisades
7 license renewal application.
8 And Bob has also been with the NRC for approximately 15
9 years. He's been a project manager for operating reactors. And in
10 fact he was the project manager for this facility, for the Palisades
11 facility, from 1996 to 1999, I believe.
12 And he's also been the environmental project manager for
13 several other license renewal applications. He served in our regional
14 office as well as Rani has been with our regional offices.
15 And Bob was, before he came to the NRC was providing
16 engineering support for submarines down at the Charleston Naval Ship
17 Yard facility. And he has a Bachelor's in Mechanical Engineering. Is
18 that right?
19 MR. SCHAAF: That's correct.
20 MR. CAMERON: Mechanical Engineering from Georgia Tech.
21 And I would just thank all of you for coming out today.
22 It's great to have this interest in what's going on and trying to
23 assist us with this important decision that we have to make.
24 And I would just stress the idea of continuity. This is
25 one meeting we're here with you this afternoon. We'll be here with

1 you tonight.

2 Bob is going to give you some contact information. Talk

3 to people from the NRC and we have our expert scientists who are

4 helping us with this environmental review. Talk to them about the

5 issues after the meeting. And if you have a question or concern

6 contact us. We're there to provide information and listen to the

7 public.

8 So thank you for being here. And Rani I'm going to turn

9 it over to you now, okay.

10 MR. CAMERON: Yes, Kevin?

11 MR. KAMPS: Can I --

12 MR. CAMERON: We need to get you on the record here and

13 let's do make this quick, but go ahead.

14 MR. KAMPS: Yeah. My name is Kevin Kamps with Nuclear

15 Information and Resource Service. And my question is, are there too

16 many members of the public who signed up that you have to limit the

17 time? Why is there a time limit imposed on --

18 MR. CAMERON: Usually we do set a time limit on public

19 comments so that we can be sure that everybody will have a chance to

20 speak. And we do that at every meeting.

21 Sometimes we'll have a hundred people at a meeting and

22 we've actually had to set the time limit at three minutes so that we

23 could get everybody on.

24 Judging by the amount of people that I see I think that

25 five to seven is probably where we're going to be. And, you know,

1 there's a, it's a guideline so that there will be some discretion
2 there in terms of going over a little bit.
3 MR. KAMPS: I'm just concerned that if someone has more
4 than seven minutes of comments that they shouldn't be cut off. That's
5 my concern.
6 MR. CAMERON: Well, that will be our guideline and if
7 people want to amplify on what they said by submitting a written
8 comment later on they can do that.
9 But what I am going to do is to ask people to try to
10 give us everything that you have in the five to seven minute period.
11 And there will not be a, you know, there won't be in the old cartoons
12 like a trapdoor opens up and you end up on the street at seven
13 minutes. That won't happen. So we'll give people enough time.
14 I just want people to have some boundaries so that we
15 can get to everybody, okay. Thank you, Kevin.
16 And, Bob, did you want to say something? Is that why
17 you're raising your hand?
18 MR. SCHAAF: If we have additional time at the end after
19 everyone has had an opportunity and someone wants to come back up.
20 MR. CAMERON: Yeah, we'll see where we are at the end of
21 the proceeding how much time we have left. Thank you, Bob.
22 And now let's go to Rani.
23 MS. FRANOVICH: Thank you, Chip.
24 I wanted to thank all of you for being here. Your
25 participation in this process is very important to us and I know it

1 takes time out of your day. So thank you all.

2 And I'm happy to be here too. I drove around the

3 community of South Haven last night, took a walk on the beach. It's

4 really a lovely area here and I'm sure you're all very proud of it.

5 And the purpose of today's meeting is to inform you a

6 little bit about the NRC's license renewal process. Also describe the

7 environmental review process specifically and a little bit about the

8 safety review process. We have two parallel processes that we go

9 through to review an application for renewal.

10 We'd like for you to share with us any information or

11 concerns you have on environmental areas. We can factor that into our

12 review. So that's the purpose of today's meeting.

13 And to let you know what the review schedule is and let

14 you know how we can accept your comments.

15 I hope the information we provide today will help you

16 understand the process we're going through and the role you can play

17 in helping us make sure that our environmental impact statement

18 addresses all the environmental issues that are important to you and

19 that we need to address.

20 Let me give you a little bit of context about the

21 license renewal process.

22 The Atomic Energy Act gives the NRC, the Nuclear

23 Regulatory Commission, the authority to issue and regulate operating

24 licenses for commercial nuclear power plants for a period of 40 years.

25 It also gives us the authority to regulate operators of these plants.

1 For the Palisades Plant that license will expire in
2 2011. Our regulations also make provisions for extending those
3 operating licenses for an additional 20 years.
4 Palisades has requested renewal. It submitted an
5 application for renewal and as part of the NRC's review of that
6 application we'll perform an environmental review to look at the
7 impacts on the environment for an additional 20 years of plant
8 operation.
9 The purpose of this meeting again is to give you
10 information about the process and to seek your input on what issues we
11 should consider within the scope of our review.
12 At the conclusion of the staff's presentation we'll be
13 happy to answer any questions and receive any comments that you have
14 on the process and the scope.
15 We have several members of the NRC here who can talk
16 with you about any questions or comments you'd like to provide.
17 Okay. Before I get into the discussion of the license
18 renewal process, I'd like to take a minute to talk about the NRC in
19 terms of what we do and what our mission is.
20 The Atomic Energy Act is legislation that authorizes us
21 to regulate the civilian use of nuclear materials in the United
22 States. In carrying out that authority the NRC's mission is
23 three-fold: to ensure adequate protection of public health and
24 safety, to protect the environment, and to provide for the common
25 defense and security.

1 The NRC accomplishes its mission through a combination
2 of regulatory programs and processes such as inspections, enforcement
3 actions, assessment of licensee performance and evaluation of
4 operating experience from nuclear plants across the country as well as
5 internationally.
6 Turning now to license renewal in particular, the NRC's
7 license review is similar to the original licensing process in that it
8 involves two parts, an environmental review and a safety review.
9 In addition, as part of the safety review the staff
10 carries out inspections and all the results of the review are
11 presented to the advisory committee on reactor safeguards. And I'll
12 explain the role of this advisory committee or the ACRS in just a
13 minute.
14 Okay. So the safety review and the environmental review
15 are parallel processes. On this slide I'm going to discuss primarily
16 the safety review process. You'll see the environmental review
17 process at the bottom.
18 The safety review involves the NRC staff's review and
19 assessment of the safety information that is contained in Nuclear
20 Management Corporation’s application for renewal. There is a team of
21 about 30 NRC technical reviewers and contractors who are conducting
22 the safety review at this time.
23 Let me introduce Mr. Michael Morgan. Mike, if you could
24 stand up. Mike is the safety project manager. He's in charge of the
25 safety review which includes audits and inspections. The safety

1 review for license renewal focuses on how Nuclear Management
2 Corporation will manage the aging of certain components and structures
3 and systems that are within the scope of the rule.
4 Some of the programs for managing aging are already in
5 place while others will be implemented as part of license renewal.
6 The audits and onsite inspections are conducted by a
7 team of inspectors from both headquarters and NRC's Region III Office.
8 A representative from our inspection program is here today. The
9 resident inspector's name is Michelle Garza. Michelle, if you don't
10 mind standing up so people can see who you are.
11 She works at the plant 40 hours a week. She's available
12 seven days a week, 24/7 to respond to any events at the plant that
13 warrant NRC response.
14 The results of the inspections for Palisades would be
15 documented in separate inspection reports. The results of the staff's
16 safety review as well as the results of inspections will be documented
17 in the safety evaluation report.
18 The staff safety evaluation is independently reviewed by
19 the ACRS, the advisory committee I mentioned. The ACRS is a group of
20 nationally recognized technical experts in nuclear safety who serve as
21 a consulting body to the Commission. The Commission is a five person
22 or a five member committee or not committee but, a group of people
23 that oversee the Nuclear Regulatory Commission.
24 The ACRS reviews each license renewal application as
25 well as the safety evaluation report and forms their own conclusions

1 and recommendations and reports directly to the Commission those
2 recommendations and conclusions.
3 Okay. This is a slide on the safety review primarily.
4 And the environmental review is where we're focusing
5 today's meeting, public meeting.
6 The second part of the review process involves an
7 environmental review with scooping activities and the development of
8 an environmental impact statement.
9 As I've said we're here today to receive your comments
10 on the scope of that review. We'll consider any comments on the scope
11 that we receive at this meeting or in any written comments when we
12 develop the draft.
13 In February of next year we expect to issue the draft
14 environmental impact statement for comment.
15 So as you can see from the slide the final commission
16 decision on whether to approve or deny an application for renewal
17 requires a number of inputs.
18 The safety evaluation report, inspection reports that
19 document the results of onsite inspections and the final environmental
20 impact statement and results of the independent review body advisory
21 committee ACRS.
22 I would like to point out that the yellow hexagons here,
23 here, here, here, here, here and here. They indicate the
24 opportunities for public participation and this meeting today is an
25 early opportunity for your participation.

1 The meeting on the draft environmental impact statement
2 is another opportunity. At this time there is still an opportunity to
3 request a hearing and that opportunity extends through August 8th.
4 The ACRS meetings also are open to the public.
5 And that concludes my presentation. Unless there are
6 any questions I'd like to turn it over to Bob Schaaf to provide more
7 detail on the environmental review.
8 MR. CAMERON: Why don't we hear from Bob, and then we'll
9 go for questions on both of those presentations. I think people might
10 have some questions on that.
11 But why don't we hear from Bob and then we'll go on --
12 MS. FRANOVICH: Okay, Bob.
13 MR. SCHAAF: Thank you, Rani. Thanks, Chip.
14 My name is Bob Schaaf. I'm the environmental project
15 manager for the Palisades license renewal application review.
16 I would also like to welcome everyone this afternoon and
17 thank you for your participation and we look forward to hearing your
18 comments when we're through with the presentations.
19 I'm going to take the next 10, 15 minutes and kind of
20 run through the environmental review process, explaining the steps
21 that the staff takes in evaluating the potential environmental impacts
22 of license renewal.
23 First a little background. The National Environmental
24 Policy Act of 1969 or NEPA, requires that federal agencies follow a
25 systematic approach in evaluating potential environmental impacts

1 associated with certain actions.

2 We're required to consider the impact of the proposed

3 action and to consider mitigation for impacts that we consider to be

4 significant.

5 We're also required to consider the impacts of

6 alternatives to the proposed action. For license renewal those

7 alternatives would include construction and operation of replacement

8 power generating facilities or alternative means for replacing the

9 Palisades electric generation.

10 The NEPA process requires development of an

11 environmental impact statement of EIS for any proposed action that may

12 significantly affect the quality of the human environment.

13 NEPA and our environmental impact statement are

14 disclosure tools. They are specifically structured to involve public

15 participation. They, our goal is to disclose the potential impacts of

16 the action and alternatives.

17 This meeting is part of the effort to involve the public

18 in our environmental review. We're here to gather information on the

19 scope of our review. That is, what specific environmental issues

20 should we consider for the proposed Palisades license renewal.

21 The staff developed a generic EIS for license renewal,

22 or GEIS, that identifies a number of issues common to all nuclear

23 plant license renewals. We are supplementing that generic EIS with a

24 site specific EIS, or SEIS, that will address issues that are specific

25 to the Palisades site.

1 And I apologize for the rash of acronyms although Chip
2 promised we'll keep them to a limit. We'll try.
3 Now I'd like to provide a little more information about
4 the GEIS.
5 The generic environmental impact statement for license
6 renewal, also known as NUREG-1437, identifies 92 environmental issues
7 that are evaluated for license renewal. About two-thirds of those
8 issues, 69 of those issues, are considered generic or category one,
9 which means that the impacts are similar for all plants or for all
10 plants with certain features such as sites that have cooling ponds to
11 provide cooling to the steam that's sent through the turbine
12 generator.
13 Only certain issues addressed in the GEIS are applicable
14 to Palisades.
15 For example, GEIS issues related to cooling ponds are
16 not evaluated for Palisades because Palisades uses cooling towers
17 instead of cooling ponds.
18 For these category one issues that are applicable to
19 Palisades we will assess whether there is any new information related
20 to those issues that might effect the conclusion we reached in the
21 GEIS.
22 If there is no new information then the conclusions of
23 the GEIS will be adopted for Palisades. If new information is
24 identified and determined to be significant then a site specific
25 analysis will be performed for that issue.

1 The generic conclusions do not, we do not put those
2 aside and not consider them in evaluating the environmental impacts
3 for Palisades. We look to see if there is information that would
4 cause us to re-evaluate our generic conclusion.
5 Identification of new and significant information is one
6 area where public participation during scooping is particularly
7 important.
8 Now what is new and significant information? New
9 information is information that was not considered in the development
10 of the GEIS. That information would be considered to be significant
11 if it would cause us to reach a different conclusion regarding the
12 issue than we reached in the GEIS.
13 For example if for one of the category one issues we
14 identified some new information through the scooping process which
15 caused us to conclude that although we determined the impact for all
16 plants in the GEIS was small if that new information leads us to a
17 conclusion that for Palisades that impact would be moderate then we
18 would perform a site specific analysis for that issue for Palisades.
19 That's the category one issues.
20 Of the remaining 23 issues 21 are referred to as
21 category two indicating that the NRC staff found that a site specific
22 analysis would be needed to determine the potential impacts.
23 For example potential impacts to threatened or
24 endangered species need to be evaluated for each site because the
25 species that are present will differ from one site to another.

1 The remaining two issues, environmental justice and
2 potential chronic effects of electromagnetic fields were not
3 categorized in the GEIS and a site specific analysis will be performed
4 for these issues.
5 Finally we will look for potential new issues that were
6 not identified in the GEIS, and this is another area where public
7 input can be especially beneficial in helping us to identify issues
8 that were not considered when we developed the GEIS.
9 And this slide spells out our decision standard for the
10 environmental review.
11 To paraphrase, we're trying to determine whether the
12 environmental impacts of the proposed action are great enough that
13 maintaining the license renewal option for Palisades is unreasonable.
14 In plain English, is license renewal acceptable from an environmental
15 standpoint.
16 This slide lists important milestone dates for our
17 environmental review. The highlighted dates indicate opportunities
18 for public involvement in the review process.
19 A federal register notice of intent to prepare an
20 environmental impact statement and conduct scooping started the
21 scooping period for our environmental review. The purpose of scooping
22 is to scope out or define the bounds of our environmental review.
23 As I noted previously we're especially interested in
24 identifying any potential new and significant information regarding
25 the category one issues and any potential new issues that need to be

1 considered.

2 This meeting is a part of that scooping process.

3 Comments from the public are an important tool in helping us define

4 the scope of the review. This meeting is being transcribed and

5 comments provided here carry the same weight as written comments

6 submitted to the NRC.

7 Written comments can also be submitted to the NRC

8 through August 22nd. I'll note again as Rani mentioned the closing

9 date for the opportunity for hearing is August 8th.

10 At the end of the scooping period we'll issue a scooping

11 summary report roughly in October of this year that will address all

12 of the comments we receive. We anticipate publishing a draft EIS in

13 February of next year and we will provide an opportunity for public

14 comment on that draft.

15 We also plan to have another meeting here in April of

16 next year to receive comments. And that meeting will take place

17 roughly in the middle of that comment period.

18 Once the comment period closes we will develop the final

19 EIS which we expect to publish in October of next year.

20 If you would like a copy of any of these reports sent

21 directly to you please be sure that you register at the table and

22 leave us your name and mailing address and we will get copies of those

23 reports to you when they're issued.

24 I believe the blue card is where we capture the names

25 and addresses of those who are interested in receiving the reports.

1 At this point we're in the process of gathering
2 information that we need to prepare the draft. As indicated here we
3 rely on a range of information sources. During this week members of
4 the NRC staff and our team of environmental experts from the Argonne
5 National Lab and the Lawrence Livermore National Lab have been
6 conducting an environmental audit to help gather information.
7 We've met with the applicant, observed conditions at the
8 site and in the immediate vicinity. Members of our team also have met
9 with local, state and other Federal agencies to gather additional
10 information to help in our scooping process. In fact several members
11 of our team were up in Lansing just this morning meeting with the
12 State Department of Environmental Quality.
13 In addition comments provided at this meeting and
14 written comments submitted by August 22nd will also inform our review.
15 Our team looks at a wide range of environmental areas.
16 Some of the areas considered include air quality, water quality and
17 potential effects on plants, wildlife and the people living in the
18 vicinity of the site.
19 We also consider environmental justice, which focuses on
20 whether there are minority or low income population groups that may be
21 disproportionally impacted by the proposed license renewal.
22 This slide provides contact information in case, for me,
23 in case you have additional questions after today. I'm the designated
24 point of contact at the NRC for the environmental portion of the
25 license renewal review. As noted earlier, Mr. Michael Morgan is the

1 project manager for the safety aging management portion of the review.
2 Although I'm providing contact information here we still
3 need to get your specific comments that you wish to have considered in
4 the review either in writing or provided here today and which will be
5 documented on the transcript.
6 Arrangements have been made for the documents associated
7 with the environmental review to be available locally. The South
8 Haven Memorial Library has agreed to make some shelf space available
9 for our documents related to the review.
10 Also documents are available through our document
11 management system which can be accessed at our Internet web page. The
12 draft and final impact statements will also be posted directly on the
13 NRC license renewal web page.
14 After the meeting comments can be submitted by mail,
15 e-mail or in person at NRC headquarters. You can send written
16 comments to us at the address shown here. There is an e-mail address
17 which has been established to receive comments on scoping. And that
18 same address will be used to receive comments on the draft when it is
19 issued.
20 And finally, although we don't have too many people take
21 advantage of this option, if you happen to be in the Rockville,
22 Maryland area you can drop off your comments in person.
23 As a reminder written comments are due to us by August
24 22nd.
25 And that concludes our presentation on the process. I

1 think we can take any questions now.

2 MR. CAMERON: Okay. Thank you, thank you Rani, thank you

3 Bob. Can we answer any questions for you on what you've heard? Yes,

4 and Ken, I'm going to have to ask you to talk into this.

5 MR. RICHARDS: Okay. You mentioned that --

6 MR. CAMERON: Just tell us, introduce yourself to us.

7 MR. RICHARDS: Ken Richards. I live about a couple of

8 miles from the plant and that's my main concern. Over the years I've

9 been watching this thing among the

10 issues that first came up is there was a seven mile cooling tube that

11 went out into the lake from the plant to cool this. That's why

12 eventually they had to build the steam, they had to build the cooling

13 towers because there was a lot of complaint about this, what effect

14 this cooling tube would have on the lake, on the environment and under

15 the snail garter thing and all of that.

16 And as I understand it they are using that cooling tube

17 from time to time. So is it really correct to say that, you know, we

18 don't have a pond, we have fuel pool that we store the old assemblies

19 until they started taking them out and putting them on the beach. But

20 are they still using the cooling tube out there then?

21 MR. SCHAAF: I'm not familiar with a seven mile tube or

22 anything like that. There was, they do --

23 MR. RICHARDS: You're not?

24 MR. SCHAAF: -- I'm not aware of one. We look for that,

25 I mean maybe the utility can address this but, the plant does have,

1 it's about a 3000 foot intake pipe.

2 Originally this plant operated on, under open cycle

3 cooling where they drew water in through that intake pipe and ran it

4 through the turbine condenser and discharged it I believe at the

5 shoreline.

6 MR. RICHARDS: Yeah, there used to be people go down

7 there and swim before 9/11.

8 MR. SCHAAF: Right. That --

9 MR. RICHARDS: And it was all open and people could go

10 down anywhere in the plant and you could go right up by the casks and

11 after 9/11 all of that stopped luckily probably. But I mean, you

12 know, is the tube, you say

13 it's --

14 MR. SCHAAF: Right. It's, it was originally designed to

15 operate in an open cycle cooling mode. Fairly early in the plant's

16 operating history as a matter of fact just a couple of years into its

17 operating period they installed the cooling towers and converted the

18 plant to operate in closed cycle cooling mode.

19 Now as you're aware if you've seen pictures of the site

20 as you operate those towers some of that cooling water turns to steam

21 and is exhausted through the top of the tower.

22 MR. RICHARDS: Yeah, we got --

23 MR. SCHAAF: And so you have to replenish that water in

24 the cooling system and so they still use that intake pipe to bring in

25 a relatively small amount of water relative to the amount that was

1 drawn in when the plant was operating under an open cycle, open cycle
2 mode.
3 MR. CAMERON: Let me just see if either Michelle or Mike
4 wants to add anything about the original question about the tube.
5 Michelle, do you know anything about this?
6 MS. GARZA: I'm not aware of any cooling tube that goes
7 out into the lake.
8 MR. CAMERON: Okay. All right. And if there's anything
9 else we can tell Ken about this we can try to address it after the
10 meeting is over. But from what I've heard we don't have any awareness
11 of this --
12 MR. SCHAAF: No, if you have any information about that
13 that you want to share with us that --
14 MR. RICHARDS: Just speaking with Mike Savage before the
15 meeting he was talking about the lake temperature --
16 MR. SCHAAF: Okay.
17 MR. RICHARDS: -- they have to do in the plant when the
18 water --
19 MR. CAMERON: And Ken, we also, we need to get all of
20 this on the transcript. So if anybody wants to offer anything on this
21 issue please tell us.
22 And let's go to this gentleman for his question.
23 MR. JORDON: Hi, my name is Chuck Jordon. I would like
24 to know if there are any independent investigators or environmental
25 investigators or are, that aren't a part of the nuclear --

1 MR. SCHAAF: The regulatory --

2 MR. JORDON: -- commission or a part of the industry?

3 MR. CAMERON: And I guess I would just point out is that

4 I think from the NRC's perspective is that this is our statutory task

5 is to be an independent investigator of safety issues.

6 But if you're asking whether there is anybody else out

7 there in addition to the NRC that's looking at, that's investigating

8 besides the people that we have for contractors, okay, our experts or

9 the company.

10 Bob, do you want to say a few words about that because

11 there may be state government --

12 MR. SCHAAF: Right.

13 MR. CAMERON: -- officials involved.

14 MR. SCHAAF: Yeah, I can speak to that.

15 The Department of Environmental Quality does conduct

16 monitoring as well. As a matter of fact we have copies back on the

17 table there of a couple of reports from the state where it actually

18 began monitoring emissions or measurements of radioactive materials in

19 the environment as early as 1958 before the Enrico Fermi Plant began

20 operation.

21 And for each plant in the State of Michigan which began

22 operation the state actually began monitoring in those areas a year or

23 two prior to the commencement of operations at each of those

24 facilities.

25 And so they have data back to 1958 and they also operate

1 a control indicator, a control measurement in Lansing where they, that
2 they have a location far removed from any reactor site where they can
3 provide comparisons to the measurements that they take in the vicinity
4 of the site.
5 And they monitor radiation measurements just in the air,
6 any radioactive particles. They sample milk in the vicinity of each
7 plant. I believe they take water samples at each location. And the
8 reports detail the findings of those measurements.
9 MR. CAMERON: And those reports are available to the
10 public?
11 MR. SCHAAF: They should be available publically. We can
12 find out where exactly you go to get those. Probably if you contacted
13 the State Department of Environmental Quality they could point you to
14 them. I don't know whether they've got them on their website or you'd
15 need to --
16 MR. CAMERON: We may be able to, between you and Rich
17 Emch should may be able to give a specific person the contact or
18 something like that.
19 MR. SCHAAF: Yeah. We can identify where you, someone to
20 contact at the state.
21 MR. CAMERON: Okay. Other questions? Okay. Let's go
22 back to Kevin.
23 MR. KAMPS: Thanks. Kevin Kamps, nuclear information. I
24 had two questions. One was what exactly was discussed with the state
25 DEQ this morning and the second question is on this August 22nd

1 deadline.

2 When do the, the clock start ticking on that and I guess

3 why such a short deadline given that today is July 27th?

4 MR. SCHAAF: Well, the notice of intent was issued, I'd

5 have to go back and look at it again. It was June 27th and it's

6 statutorily it's a, there's a 30 day notice requirement. We provide

7 about double that. It's just to set a time limit so that we can --

8 part of the requirement of NEPA is that we conduct these reviews.

9 But another part of that, of NEPA, another requirement

10 of NEPA is that we conduct those reviews in a reasonably expeditious

11 manner. We take a hard look and we evaluate the impacts.

12 But it's not meant to be something which is going to

13 take years to get through that process. And so to try and set some

14 bounds on that we, by statute, by regulation we have a 30 day

15 requirement for notice for the scoping period. We traditionally for

16 license renewals have roughly doubled that. And then I'm sorry, your

17 second question?

18 MR. CAMERON: The second question has to deal with the

19 discussions with the --

20 MR. SCHAAF: Oh, right --

21 MR. KAMPS: -- this stage down thing. Is there, to

22 finish up on I guess one just sort of in order is today is the 28th.

23 MR. SCHAAF: Right. The 28th of July.

24 MR. CAMERON: Which thank you, Stuart for reminding all

25 of us of that.

1 If people submit comments that come in like a day or a
2 week after --
3 MR. SCHAAF: Right, right. To the extent we're able to
4 do so if comments come in, you know, a few days after the deadline
5 certainly we'll give those consideration and we will attempt to do so
6 at least. But to ensure that we consider everything we ask that
7 comments be submitted by the established deadline.
8 But certainly if we, it's not a drop dead. If we get
9 something two or three days after that we're still in the process of
10 kind of collecting all those comments and evaluating them. And so if
11 we get a few comments after the deadline we can consider, we can
12 consider those.
13 MR. CAMERON: And is, let's go make sure we answer
14 Kevin's second question.
15 Rich, do you want to, you were there at the meeting. Do
16 you want to answer.
17 MR. EMCH: We met specifically this morning with people
18 in the air quality, water quality and the radiation protection groups
19 at the Department of Environmental Quality.
20 The purpose of the meeting was to see if they had any
21 issues with license renewal of Palisades, see if they had any
22 information about monitoring that they'd been doing. And in fact we
23 did obtain information about environmental and radiological monitoring
24 that they conduct.
25 We wanted to find out if they had any enforcement

1 issues, things where the plant was not following the rules that had
2 been set up for environmental protection.
3 And I guess simply I would describe the meeting as, in
4 all cases they said they really did not have any issues. And we got
5 some information from them about environmental monitoring.
6 And that's pretty much it.
7 MR. CAMERON: Okay. Thank you. I see a couple of hands
8 over here. We'll go right here before we go to Corinne.
9 Yes. And just please just introduce yourself to us now.
10 MS. GEISLER: My name is Barb Geisler. I live within the
11 ten mile radius. And my question is more specific.
12 Do you in your monitoring even the DEQ or NRC, do you
13 look at things such as increased cancer rates in the area? Do you
14 look at the soil and see if it's contaminated in any way?
15 In other words you said air, water and health. But, you
16 know, what are some of the, what's some of the specific monitoring
17 that you're doing which would include these questions of mine?
18 MR. CAMERON: Okay. There are two topics there. One of
19 which deals with monitoring to see how much radiation is in the
20 environment, soil or whatever. And, Bob, you may want to go over that
21 again.
22 But the second question had to do with cancer rates
23 which is, gets into the, what's called the epidemiology area. And,
24 Rich, I may prevail on you after Bob's done to say a few words about
25 whatever you might know about what the State of Michigan does in terms

1 of cancer rates, cancer incidence.

2 But or Bob can do this if you prefer, but could you talk

3 about the evidence of radiation and monitoring in soil and air and

4 things like that, answer the first question?

5 MR. SCHAAF: I can take a pass at that.

6 MR. CAMERON: All right.

7 MR. SCHAAF: The NRC doesn't directly conduct monitoring

8 around the sites. The utility is required to have a monitoring

9 program. We inspect that monitoring program. They take samples of

10 air. I don't know about, I imagine they sample the water typically at

11 the discharge of the facility. They'll look at vegetation. I don't

12 know for certain about soil. They have a monitoring program out to

13 probably at least ten miles. I, we may want to check with the

14 resident about the details on that.

15 So they conduct monitoring and we inspect that program.

16 They're required to submit annual reports regarding the monitoring

17 programs to us. Those reports are available on our public document

18 system.

19 In addition the state conducts monitoring as I mentioned

20 and those, they have several reports available that sort of roll out

21 that information. And they would probably be the best source to go to

22 to get additional information about the monitoring that they perform.

23 MR. CAMERON: Okay. And let's go to Rich for the second

24 part of Barbara's question that has to deal with cancer rates. This

25 is Richard Emch.

1 MR. EMCH: I'm sorry, I forgot to introduce myself. My
2 name is Richard Emch. I'm a member of the NRC staff. My particular
3 background is in health physics.
4 Just a little bit more about the environmental
5 monitoring.
6 The licensee monitors crops. They take samples of
7 crops. They do air sampling. They sample milk. When milk is not
8 available they sample vegetation. They sample water at the drinking
9 locations. They sample game fish. They sample sediments, you know,
10 in the lake.
11 I don't believe, I don't remember for sure, but I don't
12 believe they take soil samples per se. But you can get, you can infer
13 information about that from the milk samples and from the vegetation
14 samples. The milk samples are an especially sensitive sampling
15 medium.
16 Now to switch over to cancer, the issue of the cancer
17 rates.
18 The NRC does not specifically monitor cancer rates.
19 It's not within our purview to do that. There are national, federal
20 organizations that are involved in that. And in fact in 1990 the U.S.
21 Congress asked the National Cancer Institute to do a study of cancer
22 rates around nuclear power plants and around other kinds of nuclear
23 facilities.
24 And the result of that study, which included Palisades,
25 was that there was no excess cancers observed, no evidence of excess

1 cancers in the populations in the vicinity of these plants including
2 Palisades.
3 MR. CAMERON: Okay. Corinne, do you have a question?
4 MS. CAREY: Yes, yes.
5 MR. CAMERON: And let get, let me bring this over to you.
6 Okay. And do you want to get yourself on camera? You can stand up
7 there and --
8 MS. CAREY: I'll get a chin view, how's that.
9 MR. CAMERON: All right, okay.
10 MS. CAREY: Yes. I'm Corinne Carey from Grand Rapids and
11 have been coming to these meetings some time now.
12 Several things. The study that you just mentioned I've
13 heard studies that are just the opposite. And we have talked with
14 people in this area that up to eight out of ten people are saying oh,
15 yes, I know someone with cancer or I have cancer.
16 So I don't know what current studies are showing but are
17 any of these studies available on those tables back there?
18 MR. CAMERON: I don't think, I don't think that we have
19 a, I don't think we have the National Cancer Institute study
20 available. We can tell you how we can make that available or where to
21 find that, we'll do that for sure.
22 But I guess I would also ask, Rich, as far as you know,
23 Rich, some states undertake their own epidemiology studies in the
24 states, not necessarily around the nuclear power plant. I'm going to
25 go over here for a minute, Corrine, so that Rich can talk to it.

1 Some states do these studies. Florida I think, South
2 Carolina might have done some. Do you have any awareness of what
3 Michigan Department of Health or anybody has been doing in this area?
4 MR. EMCH: We did not talk to the Michigan Department of
5 Public Health or whatever their name for it is. As I said we did talk
6 to radiation protection people in the Department of Environmental
7 Quality. They expressed no concern about the dose rates or the amount
8 of radioactive material being released from the plant.
9 As I said they do take environmental monitoring samples.
10 There's no sign of any excess radionuclides from the plant and those.
11 A number of, yes, as Chip mentioned a number of studies have been
12 undertaken in a lot of other states but I'm not familiar with any
13 specific ones in the State of Michigan.
14 I'll take a moment just to, it's not exactly part of
15 your question but let me just point out we've examined the radiation
16 records, the environmental monitoring records, the effluent monitoring
17 records for this plant and the doses to a member of the public from
18 their effluents are extremely low, very low, less than a tenth of a
19 millirem per year as, to the person the maximum exposed person as
20 opposed to, you know, something in the neighborhood of 300, 360
21 millirem per year.
22 That's one tenth versus 360 that we all receive from
23 natural sources of radiation, radiation from the ground, radiation of
24 the air, cosmic radiation, radioactive material, natural radioactive
25 material in our own bodies, medical procedures such as dental X-rays,

1 chest X-rays, a flight across country on an airplane is a few millirem
2 extra from cosmic radiation.
3 So I say this to say that, only to indicate, and there's
4 a lot of variation in background. The people that live in Denver,
5 Colorado get probably twice as much as the people in Miami just
6 because they're a mile higher in the air.
7 So what I'm saying is that the kinds of doses from this
8 plant are very small. Not only are they just literally very small but
9 they're also very small in comparison even to the variation in natural
10 background that we see in the United States.
11 So I just wanted to add that.
12 MR. CAMERON: And, Corinne, if you or anybody else have,
13 you know, studies or any data or evidence that indicate something else
14 that should be considered by us that's why we're here. So please
15 submit that to us.
16 Do you have a, one more question?
17 MS. CAREY: Addition. Yeah. Since this is devoted to
18 environmental effect then surely all of that should be included in the
19 investigation. The statistics at least as well as both sides and as
20 experts from all fields that are involved with radioactivity and the
21 nuclear issues.
22 A couple of tidbits. One, I've tried to make notes on,
23 yes. Oh, yes. A couple of books here. I think this gets to the
24 point, it gets into terminology.
25 For instance this is radioactive waste production

1 storage disposal. Well, disposal of course is impossible. You do not
2 throw this stuff away. You cannot totally dispose of it. It has to
3 be managed forevermore. And particularly since plutonium is one of
4 the products from the nuclear plants, that's 4.5 billion years. I
5 mean that's long enough for anybody.
6 So I hope somebody comes up with a term that better
7 indicates such as management than disposal. And another term --
8 MR. EMCH: Chip, are we in the comment process now?
9 MR. CAMERON: No, we're not. And you can do this during
10 comment. Why don't you just finish up what you were saying.
11 MS. CAREY: Okay. I guess I'm asking that when you do
12 your materials I think we would all appreciate terms that are more
13 public terms than company terms. Like spent fuel. And spent fuel is
14 not spent. It's not less. It's too hot I understand to continue
15 using. And therefore, it's unusable and it's because it's so heavily
16 irradiated. So spent is, is one of those terms that I think your
17 materials should change.
18 MR. CAMERON: Okay. Thank you.
19 MS. CAREY: Yeah, thank you.
20 MR. CAMERON: Thank you very much, Corinne, and that is,
21 that's on the record obviously.
22 Does anybody else have a question before we go into the
23 comment period than Corinne may have given us a nice segue way into
24 that. But there is one more, let's take one more question back here
25 and then go to comment to make sure that we got all of you, all that

1 you want.

2 Kevin Kamps.

3 MR. KAMPS: Yes. Kevin Kamps, nuclear information.

4 I have a question related to this discussion of health

5 impacts and epidemiology.

6 Does your environmental review, will it include the

7 recent National Academy of Sciences' report biological effects of

8 iodizing radiation? The Number 7 report including the finding that

9 low level radiation does indeed have a adverse health impact? Will

10 that, comment on that.

11 And another question is this 1990 study that's 15 years

12 ago and my understanding is latency periods for cancers would not

13 necessarily be included, you know, unless you were to do a review, an

14 update.

15 So do you plan to do an update on that 1990 study in

16 addition to the recent findings by the National Academy that low level

17 radiation does cause adverse health impacts?

18 MR. SCHAAF: Well, I'd like to, let me --

19 MR. CAMERON: Let's, Bob, we'll go to you in a minute.

20 MR. SCHAAF: Okay.

21 MR. CAMERON: And Rich, on this but two issues on the, if

22 you could just explain to people what the recent study is that Kevin

23 was referring to and who did it and if you want to comment at all on

24 his characterization of the finding.

25 And in terms of the recency of the study I think, you

1 know, when you think about it, yeah, it was 1990, was 15 years ago. I
2 don't know if Rich has anything to say about that.
3 But I just want to emphasize that it was a national, it
4 wasn't our study. It wasn't an NRC study because we don't have the
5 authority to do studies like that. It falls to other people. And I
6 don't know whether there's another study like that in mind or on the
7 drawing boards, but why don't I shut up and let Bob and Rich if
8 necessary address those. And then we'll get into the comment period
9 MR SCHAAF: I think largely I'll defer to Rich as our
10 health physics expert on this. I know he's looked, he's been looking
11 at the BEIR-VII study and can probably speak to that.
12 Again with the National Cancer Institute study as Chip
13 indicated our mandate is not to conduct those health studies. We're,
14 our mandate is to look at the data available. So there have been any
15 number of studies of various sub-populations since the time of the
16 National Cancer Institute's study and certainly a lot of that goes
17 into, went into consideration for evaluation of public health in
18 developing the GEIS.
19 And we'll consider that. And consider anything else,
20 any other particular studies that folks care to bring forward to us to
21 consider.
22 MR. CAMERON: And I guess you raised a good point there
23 that people should understand and Rich you may want to amplify it, on
24 this. Although we don't conduct these types of epidemiology studies
25 the NRC's regulations in terms of what was permissible ought to be

1 admitted from nuclear power plants or radiation standards are all
2 based on studies like that. And before I get myself into more trouble
3 I think I'll turn it over to the expert.
4 So you know what Kevin's points were, can you address
5 that?
6 MR. EMCH: I'm going to try to remember. There's been a
7 lot of talk, I believe your first point was that the BEIR-VII report,
8 and that stands for biological effects ionizing radiation.
9 The BEIR committee is a group of, I don't know, 16 or 17
10 nationally recognized experts with medical expertise, health physics
11 expertise. And basically what they do on a fairly regular basis,
12 BEIR-V was published on a similar topic, BEIR-III was on a similar
13 topic years ago.
14 And then their most recent BEIR-VII they re examined all
15 of the available information, studies from all parts of the U.S. and
16 the world about the biological effects of ionizing radiation.
17 Their conclusions really didn't change much at all from
18 the ones before. It is entirely correct that they said they did
19 conclude and again this is not a new conclusion, they did conclude
20 that the prudent course of action is to, is what we call the linear
21 non-threshold areas, is the belief that there is some risk, some
22 health risk associated with any amount of radiation dose.
23 And the NRC's regulations and entire regulatory hearing
24 in the United States have been based on this same theory since the
25 beginning. This is not a new concept. BEIR has been saying this for

1 years and we've been saying this for years. It's why we have the
2 ALARA concept, as low as reasonably achievable concept built into Part
3 20 of our regulations.
4 The estimates that BEIR includes about the levels of
5 health risk from a certain amount of radiation exposure were slight
6 changes over the numbers that they had produced in the BEIR-V report.
7 And we're very much aware of the BEIR-VII report. It's still under
8 review by the NRC.
9 There are many other sources of information. There
10 literally have been thousands of studies about radiation exposure and
11 the possible health risks associated. There's a world health
12 organization. There's the International Committee on Radiation
13 Protection. There's the National Committee on Radiation Protection.
14 There's UNSCEAR. I forget exactly what that stands for. United
15 Nations something or other. There are many sources of information
16 here.
17 We look at all of it. The NRC has an entire branch of
18 health physicists who do nothing but review all of this kind of
19 information. I'm not a member of that branch. I'm a member of the
20 environmental review team but I talk to those people all the time.
21 So that's what I would say about the
22 BEIR-VII --
23 MR. CAMERON: Okay. But --
24 MR. EMCH: -- okay. Now I can't remember. What was the
25 other question?

1 MR. CAMERON: Well, Kevin's point was that the National
2 Cancer Institute study was done in 1990 and he was talking --
3 MR. EMCH: Sure --
4 MR. CAMERON: -- about the latency aspects.
5 MR. EMCH: Okay. Yes, there is a latency period for
6 most, for cancers actually induced by almost anything including
7 radiation there's a latency period.
8 To a large degree many of the plants such as Palisades
9 they were included in that study. And some of those are even older
10 than Palisades. There had already been a fairly significant latency
11 period but as far as I know the National Cancer Institute does not
12 have any plans to review this study. I haven't heard of any.
13 But again there are studies going on all the time.
14 There is information that is coming out such as the BEIR-VII report.
15 There are national, there are international experts that are always
16 reviewing this information. They are pouring over the Hiroshima and
17 Nagasaki data all the time.
18 And none of them, none of the credible studies are
19 showing any significant differences or significant changes over what
20 we have believed for quite a while.
21 Put that together with, I need to reemphasize this, that
22 doses to an individual from the operation of this plant are below one
23 tenth of a millirem per year. One tenth of a millirem per year. That
24 is way below what you get from just the radiation or just from the
25 materials in your own body.

1 Put that, keep that together folks because, you know, we
2 can talk all day long about what do all the studies show. But the
3 fact of the matter is the impact from this plant is clean in terms of
4 radiation exposure.
5 MR. CAMERON: Which, I know when, thank you very much,
6 Rich. And Rich is, was referring to, to the radioactive emissions
7 there. That is one aspect of our review of a license renewal
8 application. So even though that is true there are many other issues
9 that we need to look at before environmental and safety before we're
10 ready to, in our process of reviewing the application.
11 And what I'm going to suggest now is that we go to the
12 part of the meeting where we hear from you. And if we have time after
13 we hear from you to entertain more questions we'll be glad to do that
14 And thank you very much, Bob, thank you. Thank you,
15 Rich, and others from the NRC who provided information.
16 So are we okay?
17 MR. SCHAAF: We're okay.
18 MR. CAMERON: All right. The first two people that we're
19 going to hear from first of all Mayor Dale Lewis of the town of South
20 Haven.
21 Mayor, oh, hi. Mayor Lewis is right here. Why don't
22 you come up to the podium and then we're going to go to Commissioner
23 Tanlzos I think is, I'm sorry if I'm mispronounced that.
24 MR. TANLZOS: Tanlzos.
25 MR. CAMERON: Tanlzos, thank you. The mayor, mayors are

1 helpful I notice. Okay.

2 MR. LEWIS: First of all I just came off the golf course.

3 I'm dressed to play golf not to speak here.

4 Our City Council passed a resolution favoring the

5 renewal of the Palisades license agreement or renewal.

6 Palisades has been a very good neighbor to South Haven.

7 We kind of wish though that it was in the city so we get more taxes.

8 Palisades has provided many good paying jobs and that's

9 what we're looking for. And Palisades is probably the biggest single

10 employer of our citizens of South Haven.

11 It would be very detrimental to the economy of South

12 Haven, you know, if Palisades were to close.

13 Now my personal opinions on a few things.

14 Atomic, well, first of all, electricity energy demands

15 will continue to increase and therefore we continue, we need to

16 continue to build electrical generating plants of nature, one nature

17 or another.

18 And some day we will use up our coal and oil or natural

19 gas supplies for energy. And therefore it seems to me that atomic

20 energy is one of the best sources of energy that we have.

21 I believe that there is very little fallout of

22 undesirable elements from atomic power plants. I have a desire that

23 federal regulations will make it more economical to build atomic power

24 plants. They need to pass a plant plan, I don't know if that's what

25 you'd call it, but that's what I call it, a plant plan, that can be

1 used throughout the country so that the power companies can judge the
2 cost of building a plant without having a bunch of changes that drive
3 up the cost to a great extent.
4 And I think that's one of the needs of the country and I
5 hope the federal government does that. And I thought I saw a little
6 thing that President Bush was suggesting something like that which I
7 think is, would be very desirable for power plants because I know in
8 the past you start out with so much money it cost to build the power
9 plant and then when they get done the cost is three or four times as
10 much.
11 And therefore I think that the federal government needs
12 to act to make building atomic power plants more economical and
13 something you can judge the cost of before you start the plant.
14 Those are my comments.
15 MR. CAMERON: Thank you very much, Mayor Lewis.
16 MR. LEWIS: Welcome to South Haven.
17 MR. CAMERON: And thank you, thank you. It's a beautiful
18 town.
19 Commissioner Tanlzos. Van Buren County, right?
20 MR. TANLZOS: Yes.
21 MR. CAMERON: Okay.
22 MR. TANLZOS: I'll introduce myself for those who don't
23 know me.
24 My name is Tom Tanlzos. I'm a county commissioner
25 representing the First District of Van Buren County which includes

1 South Haven City, South Haven Township and the north half of Covert
2 Township. So the plant does fall within my district.
3 Also I was elected by my fellow commissioners as their
4 chairman for this two year term.
5 The plant was built in 1971 and began operation about
6 that time. But I think the track record over the last 35 years has
7 indicated that the plant has operated in an environmentally safe
8 manner. It has been closed down from time to time for refurbishing
9 and changes that come along.
10 And I think that it speaks well of the NRC or the
11 oversight committee and Palisades Consumer Power that they want to
12 operate this plant in a safe effective manner for the community. And
13 I think that the fact that we have not had any environmental safety
14 concerns over that period of time has led us to support the continued
15 operation of the plant.
16 The Mayor is right, it is a large employer to the
17 community. A large part of our tax base. But if it wasn't for the
18 safe operation of that plant we would not support its continued
19 operation.
20 With that in mind on March 22nd we unanimously passed a
21 resolution in support of the continuing operation of the plant and the
22 extension of the license.
23 And that was, are my comments. Thank you.
24 MR. CAMERON: Okay. Thank you very much, Commissioner.
25 I always think it's useful to hear what the vision of

1 the applicant is early on in these meetings so that people can hear
2 that and know that. And we have Mr. Paul Harden who is the site vice
3 president at Palisades who is going to speak to us for a few minutes.
4 Mr. Harden.
5 MR. HARDEN: Thank you.
6 As it was mentioned, my name is Paul Harden. I'm the
7 site vice president at Palisades.
8 As was mentioned Palisades has been in operation since
9 1971. The plant generates approximately 800 megawatts of electricity
10 each hour. To put that in equivalent terms that's enough to meet the
11 needs of a community of more than 500,000.
12 For Consumers Energy in the State of Michigan that's
13 about 18 percent of Consumers Energy's total generation. Or about
14 five out of every 24 hours to every customer that Consumers Energy
15 supplies.
16 I appreciate the comments that preceded me and some of
17 the benefits that the plant provides in the community through the
18 employees, the tax base and the economy from the payroll that we pay
19 out to our employees.
20 But I also want to mention that all of our employees
21 live here in the local communities surrounding the plant and the
22 counties, the cities that surround it. And everyone of those
23 employees also has a vested interest in ensuring that this plant is
24 continued to operate in a safe environmentally sound manner or we
25 wouldn't stand here in front of you today to support our license

1 renewal process.

2 The Nuclear Management Company actually operates the

3 plant for Consumers Energy. Nuclear Management Company took over in

4 2001. And since taking over operation performance of the plant

5 relative to safety and reliability has continued to improve. And it's

6 that improvement that led to the decision by Consumers Energy to

7 support moving forward for license renewal of the plant for another 20

8 years of operation.

9 Some of the benefits that we provide in addition to the

10 tax base to the local communities that are shared with tax sharing

11 entities such as the schools, the hospitals and whatnot, also includes

12 support for things such as emergency management activities in Van

13 Buren, Alligan and Barren Counties. That's also a very important

14 function.

15 As was mentioned by a couple of communities there are

16 many, 13 total, communities or government bodies including the City of

17 South Haven, Townships of Covert, Geneva, Antwerp, Columbia, Decatur,

18 Pine Grove, the greater South Haven area chamber of commerce, U.S.

19 Representative Fred Upton and a concurrent resolution by them Michigan

20 House and Senate that have supported Palisades for this license

21 renewal effort.

22 All that support comes from Palisades being an

23 environmentally friendly neighbor to these surrounding communities.

24 Nuclear energy is clean air energy. In that I mean

25 nuclear power plants produce no controlled air pollutants such as

1 sulfur particulates, green house gases. The use of nuclear energy in
2 place of other sources does help to keep our air clean.
3 To put it in equivalent terms, to replace the
4 electricity that Palisades provides it would require approximately 12
5 million barrels of oil per year or three million tons of coal per year
6 or the equivalent of about 65 million cubic feet of natural gas per
7 year.
8 Those are some of the fossil fuels that having Palisades
9 in the community displaces that would otherwise be needed to meet
10 Michigan's needs. Something that some may not be aware of is nuclear
11 power produces approximately 25 percent of electricity in Michigan,
12 not just the Palisades plant but other nuclear plants as well.
13 At Palisades, the vision that we set for our employees
14 is not a vision of meeting environmental standards or government
15 regulations. It's a picture of excellence that we paint for our
16 employees to go far beyond what regulations require to ensure that we
17 can continue to be an environmentally safe neighbor to this community.
18 And as we proceed forward with license renewal that is
19 the vision that we continue and will continue to pursue with our
20 employees is not to meet minimum requirements or standards but to push
21 ourselves to be the best in the industry at meeting every standard.
22 Thank you.
23 MR. CAMERON: Thank you very much, Mr. Harden.
24 We do have another local government official, Nancy
25 Whaley with us who is going to say a few words to us. And, Nancy, is

1 it Geneva?

2 MS. WHALEY: Geneva Township.

3 MR. CAMERON: Geneva Township. Nancy Whaley.

4 MS. WHALEY: I never realized until I became -- I'm going

5 to read this because I'm not good at just talking. I get carried away

6 I never realized until I became a board member of Geneva

7 Township in 1987 and became acquainted with the operations and effects

8 of Palisades Nuclear Plant on the structure and economic well-being of

9 Geneva Township as well as the surrounding area.

10 Palisades Plant and people continuing support of our

11 communities organizations and business throughout, through usage

12 involvement and monetary support enhance the overall community health

13 and welfare.

14 Many Palisades personnel live in Geneva Township and are

15 taxpayers which benefits Geneva Township, South Haven area emergency

16 services, Lake Michigan College, South Haven and Bangor Public

17 Schools, Van Buren Intermediate School District, South Haven Hospital,

18 South Haven Senior Services and Van Buren County.

19 Being a South Haven area emergency services authority

20 board member I have watched as Palisades has contributed much to our

21 fire and ambulance service in the ways of training, equipment and

22 support. This joint effort for the safety of our citizens and

23 Palisades personnel is a tribute to working together to make our

24 community what it is today.

25 Over the years we have been privileged to reports by

1 Palisades personnel at our township board meetings keeping us informed
2 on happenings, new procedures, updating of the siren warning system
3 and just being available to answer questions that are arise in our
4 public settings.
5 The seminars presented by Palisades personnel to provide
6 exposure for the local municipalities and businesses and industries to
7 review the plant and safety procedures that are in place as well as
8 having contact personnel for our comments and questions is indeed
9 beneficial.
10 Mark Savage, Palisades' employee, as well as a property
11 owner of Geneva Township is also available to review any concerns that
12 arise.
13 At our April 12th, 2005 board meeting the Geneva Township
14 Board unanimously voted to support the license renewal by resolution
15 which was presented to Mark Savage at this meeting.
16 It is my strong belief that the negative personal and
17 economic impact that all of us will feel if the operating license for
18 Palisades is not extended. The loss would be a great magnitude to
19 this community.
20 I am asking your full support for the 20 year renewal of
21 the licensing for Palisades. Thank you.
22 And I'm supervisor of Geneva Township.
23 MR. CAMERON: Supervisor? Okay. Thank you very much.
24 We're going to go to Barbara Geisler now and then we'll go to Mr.
25 Leroy Wolins and Mr. Ken Richards.

1 This is Barbara Geisler.

2 MS. GEISLER: My comments will be of a different order

3 than those we've heard so far. And I'm adding something after

4 listening to the government officials.

5 I understand that many people are employed by Palisades

6 and it's a part of the economy here and that makes it difficult to

7 criticize. However, if we look ahead to the seventh generation as

8 Native Americans say, there are some problems.

9 There are the problems of deterioration of the plant.

10 What happens after 20 years and another 20 and another 20. What

11 happens with the waste. We need to be asking these questions. And

12 perhaps we would then say we need to gradually move toward other

13 sources of employment. Certainly not just one company for our area.

14 And to look to something that can continue on into the future for many

15 generations.

16 I also question whether we automatically say there will

17 be and can be and should be increased energy use. I think with what

18 we know now about being on the other side of the fossil fuel curve

19 that no matter what we will have to learn to conserve energy. We will

20 have to learn to use less energy.

21 Perhaps nuclear will have to be part of that process for

22 a time. But we cannot use as much as we're using now and we certainly

23 can't increase our energy use in the future. That will simply be

24 impossible unless something is invented which we don't know about and

25 which I think is unlikely. And to say oh, hydrogen or whatever will

1 save us I personally have my doubts.

2 Okay. The second thing I'd like to say is that I'm glad

3 you are asking for public input. And it may be that NRC meetings are

4 of a different sort. Maybe hearings that I have attended in the past

5 have needed to seem almost closed. But I'm reading from someone in

6 your system who says, I am truly embarrassed by the way the public is

7 systematically excluded from the regulatory process.

8 It reminds me of the old Soviet bloc countries when they

9 conducted elections with only one name on the ballot. The nuclear

10 industry is carrying a sign in one hand proclaiming that nuclear power

11 is a solution to the global warming problem. It's other hand is

12 locking the door on public participation in the regulatory process.

13 Now today so far that doesn't seem to be true. So I'm

14 hoping that there's been a change within the NRC and those plants that

15 it is in a sense responsible for and that not just at this meeting but

16 at all meetings comments will be taken seriously as a part of a

17 democratic planning process.

18 Okay. My personal comment. I am here to represent

19 myself, my husband Maynard Coffman and the two organic growers and

20 their families who live on our farm in Bangor which is about ten miles

21 away from the plant.

22 My husband cannot be here today because he's hosting a

23 class from the math and science center in Kalamazoo. This center

24 serves the brightest students in that area.

25 The class is visiting to learn about our off the grid

1 house. Our personal energy needs are met with solar and wind power
2 and we have a very comfortable life there.
3 This can be done. And we hope that our model will
4 become a model for this alternative to be embraced by more people in
5 our area. The utilities themselves have said they want to include
6 more of this.
7 We have a friend, Art Toy, who’se run for office many
8 times in our area who put up a really big wind generator because he
9 understood that Palisades was mandated to take that energy by law.
10 But they have put so many barriers in the way of his doing this that
11 it hasn't worked yet.
12 So I would certainly ask that you reconsider putting
13 barriers in the way of citizens who are trying to help with selling
14 excess power to you. It, this state is not doing what some other
15 states more intelligently are doing with this.
16 I feel that to re-license a dangerous embrittled and
17 aged plant on the shores of Lake Michigan is pure folly as is the
18 storage of the spent fuel rods which many of us tried through an
19 organization called Palisades Watch to stop a few years ago. We were
20 unsuccessful.
21 I feel this plant should be shut down and retired for
22 service as I believe was originally planned. I may be confused about
23 that but I thought in all of these plants in the beginning it was
24 said, you know, they won't operate forever. They'll last a certain
25 amount of time then they'll be retired because they're not going to be

1 safe after that.

2 So I'm confused as to why re-license, re-license, re-

3 license how long would this go on. I need more information.

4 I do not feel that it is socially or fiscally prudent to

5 re-license Palisades. I feel it is unacceptable to put local

6 residents at such grave risk.

7 As I understand it Palisades has an embrittled core

8 which could shatter and cause a meltdown.

9 Farmers downwind of Chernobyl, which melted down as we

10 all know, are out of business because of contaminated soil. That's,

11 that's our livelihood.

12 We do not want to face that possible perhaps probable

13 scenario here at home. Human error contributed to the Chernobyl

14 meltdown and in spite of all the safeguards that you may have in place

15 at Palisades when you factor that in what will the future bring us.

16 MR. CAMERON: Thank you very much, Barbara, for those

17 comments. And we do take the public's comments seriously.

18 You had mentioned when you gave the quotes that someone

19 within our system said something and I guess that all of us would

20 probably like to know, talk to you about who that was. I don't know

21 when you said someone in our system --

22 MS. GEISLER: It was, it was on the, it was on a web site

23 and I didn't, I don't have the name with me but.

24 MR. CAMERON: Okay. I just --

25 MS. GEISLER: I can give it to you later.

1 MR. CAMERON; That's fine. I just --

2 MS. GEISLER: Yes.

3 MR. CAMERON: -- I just was wondering whether people got

4 the impression that it was someone within the NRC.

5 MS. GEISLER: It just, you know, he just says within, I

6 don't believe he's an NRC person. He's a nuclear professional.

7 MR. CAMERON: Okay. All right.

8 MS. GEISLER: And I'm pretty sure not an NRC person.

9 MR. CAMERON: Okay. Thank you. And thank you for your

10 comments. And Mr. Wolins.

11 MR. WOLINS: Yes. I'm Leroy Wolins a resident of South

12 Haven presently and for many years of Holland.

13 I have a Masters Degree in resource planning from the

14 University of Chicago which I never was able to use because the idea

15 of resource planning became very unpopular right after I graduated.

16 The McCarthy period was going full blast. And since the Soviets had

17 resource planning we must not have it.

18 I remember one city in Ohio in particular. It was

19 proposed that they plant trees along their main streets. And the

20 opposition to this was that the Soviets were planting trees along

21 their streets and therefore we must not. It's a Communist idea.

22 I am old enough to remember reading right after World

23 War II that nuclear power, which I was very conscious of as a young

24 child. In fact I wrote a story in 1943 which had the government seen

25 it they would have prevented it from being published in which World

1 War II was ended by an atomic weapon. I was 13. It wasn't a bomb, it
2 was a magnet.
3 Anyway I was very interested in atomic power and along
4 came my Scientific American and my Popular Mechanics and so on. We're
5 going to have electricity for one cent a kilowatt hour I was told on
6 the cover of one of those magazines. This is atomic energy. And I
7 believed it all.
8 I have since come to believe otherwise. I am a native
9 of Chicago, a very big effective well organized city and some years
10 ago I don't know the exact year, I didn't memorize it, and I don't
11 have the clippings and stuff.
12 But not too long ago, probably in the late 80's or early
13 90's the people in Chicago had to fix a bridge. And this to me was
14 the absolute essence of American social memory.
15 They fixed the bridge in part by driving the pile clunk,
16 clunk, clunk, clunk, clunk down into the Chicago River one day. And
17 that one day shut down the entire Loop of Chicago for a week or two,
18 closed all the commodity markets in the United States, cost over a
19 billion dollars. And what had they done?
20 Well, they had gone clunk, clunk, clunk, clunk with one
21 pile, with one pile driver, through the roof of one of the tunnels
22 that I had driven by all my driving life which wasn't all that long
23 yet, but anyway.
24 The entrances were all over the city downtown and yet no
25 one remembered there were all these tunnels, they weren't used

1 anymore, under the city that had been built to move freight between
2 all the big buildings of the downtown, a very effective idea.
3 But somebody forgot they were there. And clunk, clunk,
4 clunk, clunk one pile caused over a billion dollars in damage. That's
5 the social memory we have here in this country. And it applies to
6 many many things. And if anything that it should be thought about in
7 your thinking.
8 If anything it is the half-life of the waste materials
9 that not only are produced by the Palisades Plant, 125,000, 150,000
10 somebody told me today, 150 million years. The half-life for this
11 deadly poison to reduce itself by natural processes after man has
12 intervened to gather it together by unnatural processes.
13 When they have that Yucca Mountain thing if they ever
14 get it organized, which I have some doubts about, to bury all this
15 stuff somebody is going to decide to build a bridge or a mine or
16 something and they're going to go clunk, clunk, clunk, clunk, clunk
17 and they're going to bust it open having forgotten 100 or 150 or a
18 100,000 years. And they're going to kill a few hundred million
19 people.
20 That is what the net result of nuclear power is. It is
21 poison. The worst poison, the most long lasting poison in the history
22 of the world.
23 And we are creating more and more of it everyday at
24 every nuclear plant. And that includes Palisades. And they don't
25 know what to do with it. And they've got it stacked up in casks out

1 on the shore of Lake Michigan piled high waiting for some terrorist to
2 drop a bomb on them or something. Full of deadly poison, nuclear
3 radiation that is the net product of this wonderful safe, clean atomic
4 power that we're being sold.
5 It doesn't produce any carbon monoxide, carbon dioxide.
6 It just produces radiation. A minor little thing that nobody knows
7 what to do with.
8 So my answer is that you've already got so much of this
9 stuff that you don't know where to put it why make more. They have
10 closed that plant down many times since I've lived out here, since
11 1972. And we have never had a shortage of electricity. We were told
12 if they ever closed that plant there will be brownouts, blackouts and
13 so on which of course is not true.
14 There's plenty of electricity in the U.S. grid to take
15 care of this area, keep jobs going and so on without keeping Palisades
16 open.
17 It is time to close it. It should have been closed a
18 long time ago. We would have had less waste lying out on the shores of
19 Lake Michigan ready for terrorists to make possible use of.
20 There are ways of making electricity. On the back of my
21 T-shirt 1990. Today is the day that the 1995 General Motors solar
22 power race ends up in Canada.
23 Eleven cars from American universities including West
24 Michigan here in Kalamazoo are ending up in one of the central plain
25 cities of Canada having gone 2500 miles driven by brilliant young

1 college students without using one drop of gasoline. How's that for
2 mileage.
3 They're up there today. They're arriving. The
4 University of Michigan in first place.
5 We can use solar power. I have a handful of shares of
6 the stock in my New York Times suddenly it's called Spire. It's a
7 little company that makes solar panels up in New England. And they've
8 converted recently with the help of the U.S. Energy Department and the
9 City of Chicago and the State of Illinois and a lot of others, they've
10 converted an old brownfield factory near the south side of Chicago to
11 build solar panels. It's called Spire Chicago Incorporated, a branch
12 of the Spire Company.
13 Well, that stock a couple of weeks ago in the New York
14 Times was selling for what it always sold for, two, three dollars.
15 They have a standard policy. They won't declare a dividend even if
16 they make a profit. They will plow it all back in the company.
17 That's standard, stated in their prospectus of their company.
18 That stock was selling over the years for two and three
19 dollars. And I looked in my New York Times business section the other
20 morning, a couple of weeks ago, and it went up 29 cents which is
21 pretty good. That's ten percent in one day. And I thought oh boy, I
22 made $29. I got a hundred shares of that. I get it so I get their,
23 their annual reports and their financial statements. I'm just
24 following the company.
25 The next day I looked in my New York Times and Spire

1 which had gone from two dollars or three dollars and something is
2 three dollars and a little more, went up $3.85 to $7. And if you look
3 in your New York Times or Wall Street Journal today you'll see it's
4 now over $11. I can't even find out what happened.
5 But that's what happening to solar power. It's coming.
6 And a lot of other good forms of power are coming. And we don't have
7 to depend on the infinitely prolonged death that is represented by
8 nuclear power.
9 We do not need it and we should stop making it as fast
10 as we can. And the quickest way to do that in this area we have a
11 chance, we don't have to do anything. We just have to get the NRC to
12 not renew the license of these people out here who are producing all
13 this death potential waiting for that clunk, clunk, clunk, clunk for
14 somebody to drill a hole and open up Pandora's Box and kill God knows
15 how many millions of people.
16 Because that is the ultimate result of nuclear power.
17 Whether, how safe it is now it's like jumping off the Empire State
18 Building. As you go by the fifty second story see I haven't been hurt
19 a bit.
20 MR. CAMERON: And Mr. Wolins I'm going to have to --
21 MR. WOLINS: Okay.
22 MR. CAMERON: -- ask you to --
23 MR. WOLINS: I, sorry I talked so long. But this is very
24 important and I hope people will listen that death is coming if we
25 stay with these nuclear power plants and this is one chance to get rid

1 of one of them.

2 Thank you.

3 MR. CAMERON: Thank you. I was afraid for a minute

4 everybody was going to run out and call their broker.

5 Ken, would you like to come up.

6 This is Mr. Ken Richards.

7 MR. RICHARDS: Yes. I am mainly a concerned citizen. I

8 live like three miles from the Palisades Power Plant. And I've been

9 looking at this issue for a quite a few years. I mean I, back in '71,

10 '72 I worked over at Cook Nuclear Plant as a laborer when they build

11 this, when they built Cook. I've been, you know, I've been in on the

12 Palisades as a painter or a deconner.

13 I understand, you know, it's about the jobs here. I

14 mean our town here in South Haven or Covert where they've put the

15 plant officially, I mean we need jobs. But one thing I don't fear

16 with, if Palisades does not get its license to continue to operate is

17 that we're going to get a loss of jobs here.

18 We have a high level nuclear waste dump three miles from

19 my home that's going to be continually decontaminated. Somebody is

20 going to have to be in there taking care of this thing for thousands

21 of years to come.

22 This is going to be not just my problem it's going to be

23 my daughter's problem, her children's problem, her children's

24 children's problem. They're all going to have to pay for that as life

25 goes on.

1 Because this stuff is just going to be around forever
2 and there's no place. I've looked at Rocky Flats. I have looked at
3 all of these different places that are producing all this nuclear
4 material and this country is just teeming with this stuff and we've
5 got no place to put it. We can't find a safe place. Not Yucca
6 Mountain, they've had earthquakes, starting to find aquifer down
7 there, Christ, they've been testing bombs underground there for years
8 and just shattered everything.
9 It's not going to fly. I really wish it was. I really
10 wish all that stuff could just disappear and we could maybe get on
11 with producing electricity this way.
12 But the fact is there's not a guilt free. I hear a lot
13 of denial in the industry that we've got nothing to worry about. I
14 hear from the NRC that natural radiation is no more dangerous than the
15 radiation produced out here. I mean I've been hearing this stuff for
16 20 years. I've been hearing, you know, like Leroy here when they
17 first built these things. We were all told we'll get rid of the
18 meters on your houses, everybody is going to pay a nice G flat rate.
19 This power is the most expensive power around that we're
20 paying for. And it's just going to get a heck of a lot more expensive
21 because of the cost of having to continue to clean up this mess
22 radiation radiates. It moves. It's going to move out of that plant.
23 You can't close it down and walk away from it. It's always going to
24 be there.
25 I mean I have seen in Colorado they had --, you know,

1 this thing didn't even have, I had no respect for that plant. It was
2 a graphite control reactor. And they had a tin building up around it.
3 That thing scared me when I lived out there for ten years because of
4 what I've known about the plants here in Michigan that have real fuel
5 containments.
6 When I helped build these plants these fuel
7 containments, these high level containments we weren't told anything,
8 only low level radioactive material would be brought in to those for
9 refueling the plant. Once it goes through the reactor cycle it
10 becomes really radioactive. It was going to be sitting in a fuel pool
11 until there would be a national depository to ship it to. That never
12 happened.
13 Now we got it piling up out in these concrete casks,
14 metal casks sitting on the beach out of the high level containment.
15 Last time I was deconning there back in the '91 or so I
16 seen all this obsolete equipment all around the Palisades Plant that
17 can be cut up, stored in the mortuary there at Palisades. It's
18 already.
19 I mean we've got to have a better way than putting this
20 stuff out on the beach 150 yards from the lake. I mean that's, yes, I
21 realize in 20 years I haven't seen where this industry has killed
22 anybody. I've heard some things, you know, of people getting cancer,
23 suing the place, the company quickly settling out of court with them.
24 Well, maybe there's something there, maybe not. I really don't know.
25 But I'm not particularly scared of being, of radiation

1 coming my way just living three miles from the plant. But I am
2 concerned about those people on the plant and what happens if one of
3 those casks break.
4 I'm concerned about, you say well, we don't, the NRC
5 aren't going to monitor this thing we'll let the plant people do it.
6 Well, that's a requirement for the plant people. When they put on the
7 first VSC24 cask they didn't have internal monitors in those darn
8 things. They didn't want to put on external monitors until the public
9 outcry made them.
10 You got people here that want to be in denial for
11 economic reasons. They want to keep making a good profit. I don't
12 blame them. But my God man, when they don't want to know if there's
13 anything wrong with a plant that frankly has a, has a horrible
14 history.
15 It had a, in '93 it had the worst, it was ranked the
16 worst plant in the country out of 111 plants in NRC violations. It
17 has piled up a lot of violations. The picture is not rosy at
18 Palisades. It's the second oldest operating nuclear power plant in
19 the country.
20 You know, it's using kind of an old nuclear technology.
21 There are new technologies coming along that are clean and my hope all
22 along, what I can clearly see that immediate nuclear decommission,
23 cleanup and conversion of the Palisades Nuclear Power Plant and
24 running it on natural gas like the one they do up in Midland. Or
25 hydrogen fuel is the way it must go rather than allowing these nuclear

1 fuel rods storage casks to be piled up onsite.
2 We already have contaminated steam generators and such
3 buried on the site along with contamination of the plant to deal with.
4 Enough.
5 The time to convert Palisades Nuclear Power Plant is
6 now. I mean this, rather than relicense this and keep running this
7 poor old reactor that's been going for 40 years that was really
8 embrittled, that they're taking old fuel rod assemblies because
9 they're make out of stainless steel that have already been through the
10 cycles and sitting for years in the fuel pool, stuffing them back in
11 the reactor to sop up radiation away from the critical parts that are
12 already embrittled on the reactor vessel, so if I'm getting a little
13 technical here, but you know, I don't really lose sleep at night over
14 thinking I'm living next to this dangerous reaction about to go but,
15 you know, the thing is 40 years old. It's embrittled, folks.
16 If we're going to keep generating power here we need,
17 what they promised us back when we built the thing in the first place,
18 in 40 years a new plant would come along. It didn't happen.
19 But what we have learned in 40 years is that there's a
20 heck of a lot of ways to make electricity. And if we quit putting all
21 our effort and all our rate payers' money in keeping this dead horse
22 alive and start pursuing some of these new ones and we can do it right
23 out there at that plant because they got a fine turbine that produces
24 a lot of electricity.
25 And as Ralph Nader says they're only boiling water. We

1 just got to boil water to 700 degrees and we've got this electricity.
2 There's a lot of different ways to do it. And I hope everybody here
3 will start pursuing those different ways then keep going this very
4 dangerous way which for thousands of years to come people are going to
5 have to answer for and pay for, just for a little electricity now.
6 And thank you.
7 MR. CAMERON: Thank you very much, Mr. Archer.
8 Next, Mr. Richards, sorry. We're going to go to Mr.
9 Jordan at this point and then to Corinne Carey and then to Kevin
10 Kamps.
11 And this is Mr. Chuck Jordan.
12 MR. JORDAN: I am a, I live in Bangor which is what, 10
13 or 15 miles from here. And I'm a member of the Green Party of Van
14 Buren County and co-chair.
15 I'd like to commend the NRC for having these meetings at
16 times that people could come whether during the day or in the evening.
17 I think that is a change that's very good. And also want to say that
18 I understand that the Palisades Plant provides a lot of jobs. And I
19 know a lot of people that have worked there. I know they do the best
20 they can and they have done a reasonably good job over the years.
21 There's like you said, there's not that much nuclear energy being, or
22 radiation out there. The problem is we don't know how much is too
23 much. And any addition is more than enough.
24 However, we are opposed to renewing the Palisades
25 license for two main reasons.

1 First that I'll note if you've ever driven an old car I
2 imagine some of you have, but you know that the older it gets the more
3 it breaks down, the more different parts break down, at least on my
4 old cars. And you never know when they're going to break down. And I
5 think we all agree I'm not sure how old the Palisades Plant is but it
6 is getting old by nuclear reactor standards. And the chances of it
7 breaking down are greater and greater every year.
8 Please don't say that it can't happen here. It can
9 happen here. The chances of it happening we don't know just like we
10 don't know how much radiation is too much because it's different for
11 each individual.
12 Okay. It is a possibility. I'd hate to see the year
13 that South Haven was a town that used to be a great little tourist
14 town.
15 Second we cannot keep producing nuclear waste without a
16 way to protect us from the nuclear waste. I think enough has been
17 said that. I won't say a lot more but there is, there is no good
18 permanent solution.
19 My suggestion is that we send it to Washington, D.C.
20 But I think some of our people here live in Washington, D.C. and like,
21 like everybody else they do not want it in their backyard. Nobody
22 wants it in their backyard. I wonder why?
23 So we as Greens oppose the renewal of the Palisades
24 Plant because of it's age, because it's old and because there are no
25 solutions to what to do with the waste.

1 Thank you.

2 MR. CAMERON: Okay. Thank you, Mr Jordan. And thanks to
3 the Greens for those statements. And we're going to go to Corinne.
4 Is it Carey, right?

5 MS. CAREY: Right.

6 MR. CAMERON: Corinne Carey.

7 MS. CAREY: From Grand Rapids.

8 Yes. I am a member of Don't Waste Michigan. I have
9 been on the board and one of the founding members. In fact we started
10 when we just happened to see a familiar face at several of the various
11 meetings that were being held in Lansing when they were discussing oh,
12 that was the business about where are you going to dump this stuff in
13 the region compact and it included the Great Lakes States but it also
14 included Missouri. And Missouri was proclaimed a Great Lakes State
15 for the purpose of the compact so that they wouldn't be at a
16 disadvantage when it came to being chosen for this marvelous site.

17 Well, then somebody eventually came up with the idea why
18 should we go around and make seven different virgin territories into
19 sacrifice zones that would be forevermore holding radioactive waste.
20 Why have one everywhere? So the compacts for a whole lot of reasons
21 but that was one of the main ones.

22 I've been trying to figure out how to even start. I
23 appreciate what you've all said. And I do appreciate the people that
24 are working in doing such a very dedicated job to keep nuclear power
25 safe. At least as safe as it is. And we'll all keep our fingers

1 crossed for you because one nuclear plant on the wrong track could
2 spoil your day and mine too.
3 I live in Grand Rapids, 70 miles away. We are
4 definitely downwind. One of the maps in the big books shows I believe
5 the 50 mile radius and as you know Chernobyl has a 19 mile
6 interdiction area but they also find that the fallout that happens
7 when a nuclear castrophy does occur, settles down and then the winds
8 pick it up and swirl it around again and the next windy day or windy
9 season it settles it down again and it goes on and you end up with
10 unusual, unexpected hot spots in places that, that people didn't
11 expect. Where they no longer can go out and collect mushrooms and
12 grow their own apples and so on.
13 The same thing has happened in Lake Michigan that the
14 fallout that occurred during the above ground testing before 1963
15 turned out to be fallout like all over everywhere. There are some
16 books, one called Under the Cloud, where it'll say Sparta, Michigan
17 and name several of the other towns in succession where the plumes had
18 gone.
19 In the case of Lake Michigan there was a Michigan State
20 professor who, a few years back but quite a while back, had mapped the
21 hot spots in Lake Michigan because the fallout occurred in successive
22 sedimentary layers. And then the storm times come, that's November
23 isn't it, and, you know, the Edward Fitsgerald time etcetera.
24 And the waters rile up and then settle down and rile up
25 and settle down. So there are unexpected hot spots that have been

1 mapped in Lake Michigan.

2 I hate gloom and doom stories but if it's a reality

3 we're stupid not to recognize it.

4 Yes. Someone has said that radioactive waste is the

5 product of a nuclear power process. The power is a sideline of it.

6 Of course, nuclear power originated because somebody that was working

7 out at Hanford area realized they were wasting an awful lot of heat in

8 the making of the original atomic bombs.

9 And so, what can we do with the heat? Uh, we will boil

10 water, make steam, make power. And so, you know, in a roundabout way

11 we have ended up with nuclear plants all over the country, all over

12 the world. But we have by far the largest number.

13 But radioactive waste is definitely the product of it.

14 Somebody has said that radioactive waste is, or the

15 radioactive, the nuclear industry produces clean power. Sorry, you

16 just can't see it, you can't smell it, you can't taste it. Well, you

17 can too. I've talked to several people in this area who remember

18 tasting a penny in their mouth and that comes from exposure to

19 radiation. It's a metallic taste. I don't know if you've ever had it

20 but we'll hope not. Who knows, maybe you aren't susceptible etcetera.

21 We can't really call it clean when we look at the

22 results of the DU ammo. Depleted uranium ammunition that is being

23 used, has been used in every war the United States has been in since

24 Bosnia including Afghanistan, including two now in the Iraq area

25 etcetera.

1 If you haven't seen pictures of some of the births of
2 very disabled children, very damaged children you better find those
3 pictures. You will find them probably someplace on FSTV, free speech
4 TV, which sends, gives us news we don't get on ordinary news stations.
5 The, oh, hydrogen. Well, I happen to drive a Prius
6 which is of course a, yeah, the other H.
7 MR. CAMERON: Hybrid.
8 MS. GEISLER; Hybrid, yeah, Mike drives a hybrid. I've
9 had it four years now. If you want to drive it please meet me in the
10 parking lot.
11 It's a jewel and using half the gas that we use in the
12 other car which is also an easy car to drive. It's a Honda Civic, not
13 a hybrid, not a hydrogen car, or a hybrid car.
14 But I once thought that the hydrogen car was going to be
15 the successor. Now I find out that yes, the hydrogen car leaks at the
16 back end only water, marvelous. What we are not being told is the
17 front end that you need massive electricity to crack the water and
18 make it into hydrogen so you've got fuel cells.
19 Now that car I don't think anybody here has ever heard
20 on any of the, you know, Fox, NBC, any of the standard information
21 sources that we citizens count on to get the whole story.
22 So there are at least six nuclear plants that are in
23 process, some of them simply were started and not completed earlier.
24 I think the Watts in the TVA system is one of them. And there are
25 others that are being worked up to provide the extensive amount of

1 electric power needed to make a hydrogen H. So watch it when you talk
2 hydrogen.
3 I would strongly suggest that you get a chance to listen
4 to Amory Lovens. He has been talking best power energy solutions for
5 years now. One of the last times I heard him personally was talking
6 to the manufactures association over in Lansing. Another time was up
7 at a renewable resources pageant up in Treavor City.
8 And Amory Lovens is the man to check out because he has
9 very creative ideas. Unfortunately they're so complex I have trouble
10 repeating them. So you're going to have to find that out for
11 yourself.
12 The other night a man name J. Herman, I think was his
13 last name, who approached, he's a bioneer. If you get a chance to
14 look up bioneers in the Internet or something.
15 And he was talking about his and others discovery that
16 nature's major source of action, energy, has to do with a spiral type
17 of motion that water flows in a spiral. And there is the answer to
18 our energy problems in the not too distance future.
19 Well, what else can I say. I'm, my heart is with you.
20 You have a beautiful town. I would love to live here myself. I
21 appreciate your dilemma about jobs. I've got grandkids that can't get
22 a job in the Grand Rapids area anyway.
23 So I do understand all of these things we're talking
24 about and yet I think we need to talk about it much much more. I, we
25 need to think very clearly. We need to not sell our souls for jobs or

1 for a "solution" that creates eons of poisonous aftermath.
2 Oh, if I have any time left may I cede it please to
3 Kevin.
4 MR. CAMERON: Okay. Thank you very much, Corinne. Let's
5 go to Kevin. Kevin Kamps.
6 MR. KAMPS: My name is Kevin Kamps. And I'm from Nuclear
7 Information and Resource Service. And I'm thankful for this
8 opportunity to speak today.
9 And since this is the environmental review today I'd
10 like to specifically address some environmental issues that we would
11 like to see addressed.
12 And I'll start out with perhaps the greatest danger at
13 Palisades which is the embrittlement of the reactor core.
14 And so what we would request is that the Nuclear
15 Regulatory Commission in its review look at the potential for a
16 catastrophic accident, a rupture of the reactor core due to
17 pressurized thermal shock. And the possibility then the potential for
18 a catastrophic radiation release into the environment which would
19 ensue because once the reactor vessel ruptures there's no way to
20 control the nuclear reaction.
21 So the possibility for the so called China Syndrome, the
22 molten mass of nuclear fuel melting through the concrete floor of the
23 facility and into the ground water causing massive radioactive steam
24 escape is, is a possible scenario
25

1 And so of course you'd have to look at the fact of
2 downwind fallout from that. And also the fact that ten million people
3 just on Lake Michigan draw their drinking water from Lake Michigan and
4 if you include the entire downstream Lake Michigan, not Lake Michigan,
5 Great Lakes population we're talking 30 to 35 million people.
6 So I would ask that you look not only at the air,
7 airborne fallout but also the water borne fallout to as many as 35
8 million people downstream.
9 Another issue, I was surprised when environmental
10 justice was brought up because my understanding was that the NRC a
11 couple or three years ago had largely gutted its environmental justice
12 policy under pressure from the nuclear industry.
13 So I'm glad to hear that you're going to look at that
14 and I would request that you look at impacts on the African-American
15 populations specifically in Covert Township where the facility is
16 located. Especially the workforce which has African-American workers
17 at Palisades have actually sued the company for racial discrimination
18 because of receiving the most hazardous jobs at the facility. So I
19 would ask you to look at the, the health impacts on African-American
20 workers at the facility.
21 I'd ask you to look at health impacts on Latin Americans
22 who work in the agricultural industry in this area.
23 I'd also ask you to look at not only health impacts but
24 cultural impacts and related socioeconomic impacts on the Native
25 American tribes of this area whose land we stand on and whose land

1 Palisades is located on if the treaties were honored.
2 And I'd ask that you look at impacts on the low income
3 community of this area as well.
4 And I'd ask along those same lines that you look at the
5 impacts on the Palisades Park community which I visited for the first
6 time recently and was shocked to see how close it actually is to the
7 Palisades reactor. Actually the Palisades reactor was built in the
8 Palisades Park community. So I'd ask you to look at the health
9 impacts on that population there.
10 And I'd ask you to look at the impacts of the recent,
11 recently built water intake for the drinking water supply of South
12 Haven. Just a few years ago which, I was shocked to see was located
13 so very close to the Palisades reactor.
14 So I'd ask you to look at the outflow, the discharge of
15 radioactive particles as well as toxic chemicals from the Palisades
16 Nuclear Plant being drawn into that water intake. What kind of impact
17 that's having on South Haven residents and tourists who are visiting.
18 I'd ask you to look at the situation with the dry cask
19 storage at Palisades. I, I'd point to the, the problems with the pads
20 themselves, the old pad so close to the lakeshore. And as well as the
21 new pad further inlands. The violation of NRC regulations associated
22 with those pads.
23 And I'd ask you to look at the, the faulty casks that
24 are at Palisades. That was one thing I wanted to bring up just as a
25 general over arching theme is for instance you depend on Consumers

1 itself, Nuclear management company, to provide you with monitoring
2 data.
3 But I would point to two very large promises made by
4 Consumers that kind of start to question the believability of the
5 company. And one would be the promise many years ago that the company
6 would anneal the reactor vessel to return elasticity to the embrittled
7 reactor vessel.
8 To the best of my knowledge I, I believe it's fair to
9 say that's not happened.
10 And I'd also bring up the faulty casks. Back in June of
11 1994 a cask was loaded with high level waste. Consumers had promised
12 that if they had problems with the casks they promised this in court
13 under oath, that they would return the fuel to the pool.
14 Well, it just so happens that the fourth cask to be
15 loaded out there had defective welds and here we are 11 years later
16 and that cask is still loaded fully with high level waste that has not
17 been unloaded.
18 So I would look at the deterioration of the casks over
19 time and the lack of an unloading procedure. There's been no
20 demonstration of it at Palisades or anywhere else to my knowledge.
21 I'd ask that you look at the impacts of the global
22 climate crisis on the operations of the Palisades Nuclear Power Plant,
23 more severe weather, fluctuations in lake level which could impact
24 the, the cooling of the reactor, increases in the, the temperature of
25 the lake water which could make the operability impossible at

1 Palisades. If the water is too hot they won't be able to cool the
2 reactor.
3 And I would challenge the NRC environmental reviewers
4 to, to look at the lack of information about cancer rates in the
5 vicinity of nuclear plants like was raised earlier. This 15 year old
6 study would not include the latency period for certain cancers that
7 have perhaps happened in the last 15 years.
8 And I would also challenge you to, to look for flaws in
9 the methodology of that study. A mother in Morris, Illinois named
10 Cynthia Sauer whose daughter contracted brain cancer at age 10, age
11 seven I'm sorry, who is now 10 and in remission, has looked into that
12 study very carefully and has found flaws in the methodology. And of
13 course Morris, Illinois is the site of three reactors as well as a
14 large waste storage pool.
15 And I'd also challenge something that was brought up by
16 the health physicist from NRC. Depending on the United Nations
17 scientific committee on the effects of ionizing radiation UNSCEAR is
18 problematic because just to give you one example in their review of
19 the Chernobyl aftermath on human health they failed to look at the
20 consequences of internal doses of radioactivity.
21 All that they were looking at was external doses of
22 radioactivity. But of course the people there are eating radiation in
23 their food, drinking it in their water, perhaps even breathing it in.
24 So that's problematic.
25 So I challenge you to, to look at internal doses

1 especially in light of the Biological Effects of Ionizing Radiation
2 report which recently came out which actually found that at lower
3 levels of radiation the impact may be higher than previously thought
4 approaching a direct relationship as you mentioned the no threshold
5 theory was retained. So at low levels of radiation which we're
6 talking about here in terms of routine radiation releases there is
7 health damage associated with that.
8 And I would ask that the August 22nd deadline for
9 comments be extended because this really is the first opportunity for
10 people to learn about this environmental review process. So that
11 doesn't leave much time for people to get up to speed to read these
12 very thick documents and to submit comments.
13 And I guess I'd just like to end by saying that there's
14 a growing coalition of individuals and organizations in this area who
15 fully intend on intervening against the license extension at
16 Palisades. And we would, perhaps this isn't the exact correct forum
17 but we would, we would express a request for an extension to that
18 August 8th deadline as well given the limited resources of these non
19 profit groups and individuals.
20 But I would invite others in the room who are concerned
21 about the license extension or directly opposed to it to approach me
22 after the meeting. We would like to talk to you and to bring you into
23 our coalition of groups.
24 And I would also point people to the information I'll
25 display that we set up in the back of the room. You're welcome to

1 take anything there, ask me any questions you might have.
2 The final issue I would like to raise and it's, it's
3 again a direct challenge to the NRC is the lack of consideration of
4 the possibility of a terrorist attack on Palisades.
5 The NRC commissioners themselves have ruled that
6 terrorism is too speculative to consider during licensing proceedings.
7 And we would like to have on the record that we challenged that given
8 some of the things I brought that 35 million people downstream drink
9 the water of the Great Lakes.
10 So it is indeed a potentially catastrophic target and it
11 needs to be taken into consideration as well.
12 Thank you.
13 MR. CAMERON; Thank you, Kevin, for those very very
14 specific comments. And I'm going to ask Darani Reddick of our Office
15 of General Counsel who is right here to talk to you after the meeting
16 about the most effective way for you to request an extension in terms
17 of the hearing request. I wouldn't want to just have that request
18 rely on being made at this, this meeting so that it can be given full
19 faith and consideration. So, Darani, if you could, you can talk to
20 Kevin about that.
21 And just one clarification on the terrorist attack being
22 speculative. And I don't think it takes away from the point that
23 Kevin was necessarily trying to make. But it was in the context of
24 being considered in the environmental review that would be done for a
25 reactor or fuel storage license application.

1 In other words the, those possibilities could still be
2 considered within the licensing of it but just not in the
3 environmental review. And I would just add that small clarification.
4 Do we have anybody who has not spoken so far that would
5 like to say anything at this point?
6 Well, I'm going to ask, I'm going to suggest that we
7 adjourn so that there can be some conversations among NRC staff and
8 some of our experts who are with us from Argonne and the other labs
9 with all of you about some of these issues. And Darani can talk to
10 Kevin about that. And we traditionally close by asking the chief of
11 the environmental section to just close the meeting out for us. If
12 you could do that Rani, Rani Franovich.
13 MS. FRANOVICH: Again, thank you very much for coming.
14 Your participation in this process is very important to us and we
15 appreciate the time you've taken out of your schedules to be here with
16 us today.
17 I wanted to let you all know that there is some feedback
18 forms on the table in the back of the room. So if there are ways that
19 we could receive your comments or conduct these meetings that would
20 better address your needs, please let us know. You can fill out one
21 of those forms and leave it there or mail it in, postage is prepaid.
22 Also wanted to remind you that in the written comments
23 that you'd like to provide to the staff, they need to be submitted by
24 August 22nd in order to be, in order for us to assure that, assure you
25 that we can consider them.

1 As Bob had indicated if you send them to us a few days
2 later chances are we will still be able to address them. But if
3 they're weeks later I don't think that that would be timely enough for
4 us to give them full consideration.
5 The last thing I wanted to mention is that NRC staff
6 people and contractors will be available for a few minutes after the
7 meetings this afternoon and later this evening. So please feel free
8 to approach one of us or several of us if there are any other
9 questions or concerns that you'd like to discuss with us.
10 Thanks, again.
11 MR. CAMERON: And just one point of clarification on
12 that. We did receive a request from Kevin to extend the comment
13 period and I know the staff is not going to address that now. We may
14 not extend the comment period but there is a request in to consider
15 that. And if there is an extension we would notify --
16 MS. FRANOVICH: Yeah, Mr. Kamps, let me just clarify
17 that.
18 You were requesting extension for the opportunity for
19 hearing, correct?
20 MR. KAMPS: Tuesday.
21 MR. CAMERON: For both.
22 MS. FRANOVICH: For both?
23 MR. KAMPS: For both.
24 MS. FRANOVICH: Okay. Thank you.
25 MR. CAMERON: All right. Thank you.

1 MS. FRANOVICH: Thank you very much.

2 (Whereupon, the meeting was adjourned at

3 3:50 p.m.)

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