

UNITED STATES OF AMERICA

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NUCLEAR REGULATORY COMMISSION

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PALISADES SCOPING MEETING

+ + + + +

THURSDAY

JULY 28<sup>TH</sup>, 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 28<sup>th</sup>, 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

MR. CAMERON: We have a couple more people coming in now

Well, good afternoon, everyone.

And I just wanted to welcome you to our public meeting

And it's my pleasure to serve as your facilitator today.

And in that role I'll try to help all of you to have a productive meeting.

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

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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 scoping 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 8<sup>th</sup>.

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 scoping 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 scoping 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 scoping started the  
21                  scoping period for our environmental review. The purpose of scoping  
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 22<sup>nd</sup>. I'll note again as Rani mentioned the closing  
9 date for the opportunity for hearing is August 8<sup>th</sup>.

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 22<sup>nd</sup> 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 22<sup>nd</sup>.

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 22<sup>nd</sup>

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 27<sup>th</sup>?

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 27<sup>th</sup> 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 28<sup>th</sup>.

23 MR. SCHAAF: Right. The 28<sup>th</sup> 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 22<sup>nd</sup> 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 12<sup>th</sup>, 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's 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 Fitzgerald 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 inland. 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 22<sup>nd</sup> 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 8<sup>th</sup> 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 22<sup>nd</sup> 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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