

# Official Transcript of Proceedings

## NUCLEAR REGULATORY COMMISSION

### Corrected Transcript

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Afternoon Session

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DONALD C. COOK NUCLEAR PLANT

UNITS 1 AND 2

PUBLIC MEETING TO DISCUSS

THE SUPPLEMENTAL ENVIRONMENTAL IMPACT

STATEMENT FOR LICENSE RENEWAL

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PUBLIC MEETING - AFTERNOON SESSION

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TUESDAY

NOVEMBER 9, 2004

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BRIDGMAN, MICHIGAN

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The meeting was held at 1:32 p.m., at the Lake  
Charter Township Hall, 3220 Shawnee Road, Bridgman,  
Michigan. Chip Cameron, Facilitator, presiding.

PRESENTERS:

Andy Kugler

William Dam

Bob Palla

Kirk LaGory

A-G-E-N-D-A

1		<u>PAGE</u>
2	WELCOME - Facilitator Cameron . . . . .	3
3	Andrew Kugler . . . . .	7
4	Overview of License Renewal Process	
5	William Dam . . . . .	12
6	Results of the Environmental Review	
7	Kirk LaGory . . . . .	15
8	Severe Accident Mitigation Alternative	
9	Mark Rubin . . . . .	26
10	How Comments can be submitted	
11	William Dam . . . . .	33
12	Public Comments:	
13	Mano Nazar, American Electric Power . . . . .	35
14	John Gast, Supervisor Lake Township . . . . .	39
15	Kevin Ivers, Bridgman Public Schools . . . . .	40
16	Anna Murphy, United Way . . . . .	41
17	Greg Korocho, Lake Michigan College . . . . .	42
18	H. E. "Buzz" Calvert, Volunteer Center of	
19	SW Michigan . . . . .	43
20	Mike Green, Harbor Habitat for Humanity . . . . .	44
21	Mike Poluhanyo, Citizen . . . . .	47
22	Closing Remarks	
23	Chip Cameron . . . . .	47
24		

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

FACILITATOR CAMERON: If everybody could take a seat, we'll get started with - - with today's meeting. Good afternoon, everyone. My name is Chip Cameron and I'm the Special Counsel for Public Liaison at the United States Nuclear Regulatory Commission and it's my pleasure to welcome you all to the NRC's public meeting today. And the subject of the meeting is going to focus on the draft Environmental Impact Statement that the NRC has prepared to help us in our evaluation of an application that we received from Indiana Michigan Power Company to renew the operating licenses at the D.C. Cook Plant for both Units One and Two at D.C. Cook.

And I'm going to be your facilitator today, and I will just try to help all of you to have a productive meeting this afternoon. Our format for the meeting is basically going to be a two-part format. In the first part of the meeting, we're going to give you some background information on the NRC's license renewal evaluation process, specifically on the findings and conclusions in the draft Environmental Impact Statement.

The second part of the meeting, is to

1 give us an opportunity to hear from all of you in  
2 terms of any advice, recommendations, and concerns  
3 that you might have about the draft Environmental  
4 Impact Statement. We are taking written comments on  
5 the draft Environmental Impact Statement, but we're  
6 here today and another meeting tonight to meet with  
7 you in person on these issues. And let me assure  
8 you that anything that is said today will carry the  
9 same weight as a written comment.

10 The ground rules are very simple.  
11 During the question part of the meeting - - during  
12 the first part of the meeting, if you have a  
13 question, just signal me, and I'll bring you this  
14 cordless microphone. Give us your name and  
15 affiliation, if appropriate. And we'll try to  
16 answer your question.

17 We are taking a transcript. Tracy is  
18 our electronic court reporter/transcriptionist here,  
19 and that will be our record of the meeting and it  
20 will be available to any of you who want to have a  
21 copy.

22 When we get to the second part of the  
23 meeting, we'll call you to come up to the podium to  
24 speak to us. If you feel more comfortable staying  
25 where you are and speaking into the cordless mike,

1 we can do that also. And usually, I ask people to  
2 try to be concise and we have a five-minute  
3 guideline for the formal comments, but I don't think  
4 we're going to have any problem in terms of time  
5 today. So just keep the five minutes in mind.

6 In terms of the presenters for today's  
7 meeting, and this will give you an idea about the  
8 agenda, we're going to start off with - - and I'll  
9 give you a little bit of background on each of these  
10 people in a minute. But we're going to start off  
11 with Mr. Andy Kugler, who's right here, from the  
12 NRC. And Andy is the chief of the section that does  
13 the environmental reviews, not only on all the  
14 applications that come in for reactor license  
15 renewal, but any environmental review for a reactor  
16 licensing issue. And he's going to give you an  
17 overview of license renewal.

18 And then we're going to go to Mr. Bill  
19 Dam, who is right here. Bill works for Andy and  
20 he's the project manager on the environmental review  
21 on the D.C. Cook license renewal application.

22 After they're done, we'll see if there's  
23 any questions about the process overall. And then  
24 we're going to go to the heart of the meeting today,  
25 which is the conclusions in the draft Environmental

1 Impact Statement, and we have Mr. Kirk LaGory here.  
2 Kirk is one of our expert consultants and he's the  
3 team leader of the experts that we have working to  
4 prepare this Environmental Impact Statement. He'll  
5 talk about the conclusions there. Again, we'll go  
6 out for questions to you.

7 And then we're going to go to a  
8 specialized part of the draft Environmental Impact  
9 Statement and this is something called the Severe  
10 Accident Mitigation Alternatives. We have Mr. Mark  
11 Rubin with us right here this afternoon, who's going  
12 to talk to that, go out to you for questions again,  
13 and then we're going to go back to Mr. Bill Dam to  
14 tell us about some conclusions. And that's going to  
15 be our agenda for today.

16 FACILITATOR CAMERON: Mr. Kugler has  
17 been with the NRC for 14 years. He was in the Navy  
18 Submarine Service. He has just been appointed as  
19 the Section Chief for the Environmental Review  
20 Section, a few months ago. He has a Bachelor of  
21 Science in mechanical engineering from Cooper Union  
22 in New York City, and a Master of Science in  
23 technical management from Johns Hopkins University.

24 And Bill Dam who is the project manager  
25 on the environmental review, again, he works for

1 Andy. He's been with the NRC for about seven years,  
2 and he was an environmental consultant before that.  
3 And he has a Bachelor's Degree in geology from  
4 Guildford College in Greensboro North Carolina, and  
5 a Master's degree in Geology from the University of  
6 Wyoming.

7 And Kirk LaGory, he is with Argonne Lab.  
8 He is an ecologist. He has a PhD in zoology and  
9 that PhD is from Miami University of Ohio.

10 Mark Rubin is a Section Chief in  
11 something called the Probabilistic Safety Assessment  
12 branch in our Nuclear Reactor Regulation office back  
13 in Washington, D.C. He has over 25 years of  
14 experience in safety and probabilistic risk  
15 assessment. And he has a Bachelor's and Master's  
16 degree in engineering from UCLA and also a Master's  
17 in Business Administration from the University of  
18 Maryland. He's a member of the American Nuclear  
19 Society's Risk Informed Standards Committee.

20 But that gives you an idea of what their  
21 credentials are and I just would thank all of you  
22 for coming out to be with us for today's meeting.  
23 And I'll turn it over to Andy.

24 ANDREW KUGLER: Thank you, Chip. Thank  
25 you all today for coming to our meeting today. I



1 hope that the information we provide to you will be  
2 helpful and will help you to understand the process  
3 that we're going through right now, what we've done  
4 so far in that process, and the role that you can  
5 play in helping to insure that our final  
6 environmental impact statement is an accurate  
7 document.

8 First let me provide some general  
9 context on license renewal. The Atomic Energy Act  
10 gives the NRC the authority to issue operating  
11 licenses for nuclear power plants for a period of  
12 forty years. For D.C. Cook, Units One and Two,  
13 these licenses will expire in the years 2014 and  
14 2017 respectively.

15 Our regulations also make provisions for  
16 us to grant 20-year extensions to operating  
17 licenses. The Indiana Michigan Power Company has  
18 requested extensions of the licenses for Cook units  
19 one and two. As part of the NRC's review of a  
20 license renewal application, we perform an  
21 environmental review to look at the impacts of  
22 running the units for an additional 20 years. We  
23 held a meeting here back in March where we discussed  
24 the scope of our review, and we've returned now to  
25 go over the preliminary results of our review as

1 discussed in the draft Environmental Impact  
2 Statement. And to give you an opportunity to ask  
3 questions or provide comments on the draft.

4 Before I get into the discussion of the  
5 license renewal process itself, I'd like to take a  
6 minute to talk about the NRC in terms of what we do  
7 and what our mission is. As I mentioned, the Atomic  
8 Energy Act is a legislation that authorizes us to  
9 regulate the civilian use of nuclear materials in  
10 the United States.

11 In exercising that authority, the NRC  
12 has a three-fold mission. The first is to insure  
13 the adequate protection of the public health and  
14 safety. We also have a mission to protect the  
15 environment, and finally, to insure the common  
16 defense and security. The NRC accomplishes its  
17 mission through a combination of regulatory programs  
18 and processes, such as inspections, enforcement  
19 actions, assessments of licensee's performance, and  
20 the evaluation of operating experience at the plants  
21 throughout the country.

22 Turning now to license renewal, the  
23 review that we perform is very similar to the review  
24 that was performed when these plants were originally  
25 licensed. And in that regard, there are really two

1 parts to the review. A safety review and an  
2 environmental review.

3 The safety review includes a safety  
4 evaluation, plant inspections and audits, and an  
5 independent review by the Advisory Committee on  
6 Reactor Safeguards. Also referred to as the ACRS.  
7 Now there are two basic types of safety issues that  
8 we might be looking at. One is the current issues  
9 at the plant and these are dealt with today and on  
10 an on-going basis. And the other issues related to  
11 aging management or the aging of equipment in the  
12 plant. And these are dealt with in license renewal.

13 Under the current operating license, the  
14 NRC's oversight process monitors current issues and  
15 responds to those issues. We don't wait until an  
16 application for license renewal to deal with the  
17 current issues at a plant. And because the NRC has  
18 or is dealing with issues such as security and  
19 emergency planning on a continuing basis, we don't  
20 reevaluate them in our license renewal review.

21 Instead, the license renewal safety  
22 review focuses on aging management issues and the  
23 programs that the licensee either has or will have  
24 in place to maintain the equipment safely. We look  
25 at specific groups of components and make a

1 determination whether current or planned programs  
2 will insure that the issues related to aging are  
3 detected and properly managed for the period of  
4 extended operation. The results are then documented  
5 in a safety evaluation report.

6 That report is independently reviewed  
7 by the ACRS. Now, the ACRS is a group of technical  
8 experts in nuclear safety, and they serve as a  
9 consulting body for the Commission. They'll review  
10 each license renewal application and the safety  
11 evaluation report and make their own determinations  
12 and conclusions and then report those independently  
13 to the Commission.

14 In relation to the environmental review  
15 which Mr. Bill Dam will discuss in more detail in a  
16 few minutes, we evaluate the impacts of the  
17 continued operation of the Plant in a number of  
18 areas. These would include ecology, hydrology,  
19 cultural resources, socioeconomic and a number of  
20 other areas.

21 Next slide please. This slide gives a  
22 graphic representation of the license renewal  
23 process. As I indicated, there's two basic paths in  
24 this review. The upper path is the safety review.  
25 And then the lower path is the environmental review.

1           The safety review involves the staff's  
2       review and assessment of safety information that was  
3       provided in the licensee's application. There's a  
4       team of about 30 NRC technical reviewers and  
5       contractors who are involved in conducting this  
6       review. The safety review focuses on the  
7       effectiveness of the aging management programs for  
8       the plant systems and structures that are within the  
9       scope of license renewal. The NRC staff reviews the  
10      effectiveness of these programs to insure that the  
11      plant can be safely maintained throughout the  
12      license renewal term.

13           The safety review process also involves  
14      audits and on-site inspections. These inspections  
15      are conducted by a team of inspectors pulled from  
16      both headquarters and our regional office. We have  
17      a representative of our inspection program here  
18      today and he's the senior resident inspector at D.C.  
19      Cook. His name is Brian Kemker. Brian, if you  
20      could. We also have an individual from the Region  
21      Three office and that's Patricia Loughheed.

22           The results of the inspections are  
23      recorded in separate inspection reports and these  
24      results and the results of the staff's aging  
25      management review will be documented in the safety

1 evaluation report. As I mentioned, that report will  
2 then be provided to the ACRS for its independent  
3 review. Two of the on-site inspections have been  
4 completed and we are in the process of preparing the  
5 safety evaluation report right now.

6 The second part of the review process  
7 involves the environmental review. The scoping  
8 activities that were carried out earlier and the  
9 development of a draft supplement to the Generic  
10 Environmental Impact Statement for License Renewal  
11 of Nuclear Power Plants, a document we refer to as  
12 the GEIS. The draft Environmental Impact Statement  
13 has been published for comment and we're here  
14 tonight to briefly discuss the results and to  
15 receive your comments. We expect to issue the  
16 final Environmental Impact Statement in May of next  
17 year. And this will incorporate any comments we  
18 receive here today and any comments we receive in  
19 writing during the comment period.

20 So as you can see from this slide, there  
21 are a number of things that will go into the  
22 Commission's eventual decision as to whether or not  
23 to approve license renewal for D.C. Cook Units One  
24 and Two. There needs to be a Safety Evaluation  
25 Report, an Environmental Impact Statement, the

1 inspection reports from the region, and the  
2 independent review by the ACRS.

3 I'd like to point out the splash symbols  
4 on the slide. These indicate opportunities for  
5 public involvement in the review. The first  
6 opportunity occurred during the scoping period back  
7 in March when we gave people an opportunity to  
8 provide inputs on what the scope of our review  
9 should be. We held meetings here at that time and  
10 some of you may have attended that meeting.

11 This meeting on the draft Environmental  
12 Impact Statement is another opportunity. It is also  
13 an opportunity to request a formal adjudicatory  
14 hearing on the license renewal review. This hearing  
15 would have taken place in front of an Atomic Safety  
16 and Licensing Board panel. However, no one  
17 requested a hearing and so that portion of the  
18 review is not applicable here. And then, finally,  
19 the ACRS meeting to discuss the results of the  
20 safety review will be open to the public.

21 Now I'd like to turn things over to Mr.  
22 Bill Dam and he'll discuss the environmental review  
23 in a bit more detail. Thank you.

24 WILLIAM DAM: Thanks, Andy. My name is  
25 Bill Dam and I'm the environmental project manager.

1 My responsibility is to coordinate the efforts of  
2 NRC staff including a team from national  
3 laboratories who have expert knowledge in various  
4 environmental fields, and help us prepare the  
5 Environmental Impact Statement.

6 The National Environmental Policy Act of  
7 1969 requires a systematic approach in evaluating  
8 impacts of proposed major federal actions.  
9 Consideration is given to the environmental impacts  
10 of the proposed action, the mitigation for any  
11 impacts that are believed to be significant  
12 alternatives taken into account and no action  
13 alternatives on the applicant's request are also  
14 considered.

15 The Environmental Impact Statement is a  
16 disclosure tool and it involves public  
17 participation. NRC regulations require that an  
18 Environmental Impact Statement be prepared for the  
19 proposed license renewal activities. So we're  
20 here today to collect public comments on the draft  
21 statement and include those comments on the final  
22 report.

23 This slide defines our legal decision  
24 standard that follows from our environmental  
25 analysis. It basically asks two questions: Is the



1 license renewal acceptable from an environmental  
2 standpoint; and secondly, should the option for  
3 extending power plant operations be preserved. We,  
4 at the NRC, do not decide whether the D.C. Cook  
5 plant actually operates an additional 20 years.  
6 That decision is left up to the power company, to  
7 the state regulators, and other people who make that  
8 final decision for continuing plant operations.

9           Andy already described the overall  
10 safety and environmental process. Here we have a  
11 more detailed environmental process slide that we go  
12 through in evaluating an application for license  
13 renewal. The Indiana Michigan Power Company  
14 submitted their application for license renewal to  
15 the NRC on October 31, 2003. We subsequently put  
16 formal notice in the Federal Register that we would  
17 prepare an Environmental Impact Statement associated  
18 with that application. The Federal Register notice  
19 began the scoping process, which invited public  
20 participation early in the process. We conducted a  
21 scoping meeting in early March of that year to  
22 examine the bounds of our environmental evaluation.

23           We also brought a team of experts from  
24 national labs to examine inside and outside the  
25 power plant, to review a substantial volume of

1 information that was available to us and also to  
2 interview site personnel as well as going out into  
3 the community and meeting with local and state  
4 officials. If, after all that activity, we still  
5 don't have all the information that we need to help  
6 us prepare draft Environmental Impact Statement, we  
7 send out a formal request for additional information  
8 that is sent to the applicant. So three weeks after  
9 we performed our site audit, we prepared and sent  
10 out a request for information on those remaining  
11 issues or concerns that we had.

12 After we get back the answers to the  
13 request for information and we examine all the  
14 information we have, we put that into and issue a  
15 draft Environmental Impact Statement. We issued the  
16 draft supplement to the Generic Environmental Impact  
17 Statement about six weeks ago. And in a few  
18 minutes, we'll be hearing from Dr. Kirk LaGory, the  
19 Argonne National Lab Team Leader, who will share the  
20 results of our findings.

21 Presently, we're in the middle of the  
22 public comment period on the draft statement which  
23 will expire in about five weeks. Once we get all  
24 the public comments in, including what we receive at  
25 this meeting, then we will evaluate all that and

1 publish a final Environmental Impact Statement. Our  
2 schedule presently provides for the final  
3 Environmental Impact Statement to be published May,  
4 2005.

5 That concludes my remarks and I'd be  
6 happy to answer questions.

7 FACILITATOR CAMERON: Thank you, Andy.  
8 Thanks, Bill. We're going to go to Dr. Kirk LaGory  
9 now to tell us about what the findings are in the  
10 draft Environmental Impact Statement.

11 KIRK LAGORY: Thank you, Chip. Again,  
12 my name is Kirk LaGory. I am an ecologist at  
13 Argonne National Laboratory and I am the project  
14 team leader for the Cook Plant EIS. The NRC  
15 contracted with Argonne and Pacific Northwest  
16 National Laboratory to provide the expertise  
17 necessary to evaluate the impacts of license renewal  
18 at the Cook Nuclear Plant. The EIS team consists of  
19 scientists from the two national laboratories as  
20 well as NRC staff. This slide shows the team  
21 expertise represented by those staff. We really  
22 cover the full range of possible impact area growing  
23 from air, human systems, socioeconomic, things like  
24 jobs, education, environmental justice issues,  
25 archeology, historical resources. Issues associated

1 with - - with the land. Terrestrial ecology and  
2 land use. Issues associated with the water. Things  
3 like aquatic ecology, hydrology, both surface water  
4 and ground water hydrology. And then we also look  
5 at radiation protection and regulatory compliance  
6 issues. Next slide.

7 This slide shows our overall approach in  
8 preparing the EIS. Before I go into this slide,  
9 though, I'd like to give you some background to help  
10 you understand the overall process. Back in the  
11 mid-90's, the NRC evaluated the impacts of all  
12 operating nuclear plants across the country. NRC  
13 looked at 92 separate impact areas and found that  
14 for 69 issues, the impacts would be the same for all  
15 plants that had similar features. NRC called these,  
16 Category One issues and made the same generic  
17 determination about their impacts. They determined  
18 that the impacts would be small. And published  
19 their findings in the Generic Environmental Impact  
20 Statement for License Renewal, which was issued in  
21 1996.

22 The NRC was unable to make generic  
23 conclusions about the remaining 23 issues. These  
24 were called Category Two issues. And determined  
25 that a site-specific supplemental EIS would have to

1 be prepared to cover those Category Two issues. And  
2 it is the supplement for the Cook plant that we're  
3 talking about today.

4 So this slide shows the process that we  
5 used. We looked at the Category One issues relevant  
6 to the Cook Plant to determine if the conclusion in  
7 the Generic EIS was still valid. Specifically, we  
8 looked for any new and significant information that  
9 might change that conclusion. If we found no  
10 significant information or new information, we  
11 adopted the conclusions in the Generic EIS. If,  
12 however, new and significant information was  
13 identified, then a site-specific analysis was  
14 performed.

15 For all Category Two issues that were  
16 relevant to the Cook Plant, we performed site-  
17 specific analyses. And that is really the bulk of  
18 the EIS that addresses those Category Two issues,  
19 the site-specific analysis relevant to those. On  
20 the right hand portion of this slide, there shows  
21 that there also is a process to identify new issues,  
22 issues that were not considered in the generic EIS.  
23 If those come to the attention of the team during  
24 the process, those are considered and then included,  
25 if relevant. That was - - we did not find any

1 potential new issues for the Cook Plant.

2 In the generic EIS, the NRC defined  
3 three impact levels: Small, moderate and large.  
4 And the definitions for those impact levels are  
5 provided in this slide. A small effect would not be  
6 detectable or would be too small to destabilize or  
7 noticeably alter any important attribute of the  
8 resource under consideration.

9 A moderate effect would be one that is  
10 sufficient to noticeably alter a resource but not  
11 destabilize important attributes of that resource.

12 And then a large effect is one that  
13 would be clearly noticeable and would be sufficient  
14 to destabilize important attributes of the resource.

15 To illustrate the way we use these  
16 impact levels, I'm going to talk about the Lake  
17 Michigan Fishery. The operation of the Cook Plant  
18 may cause the loss of fish at the cooling system  
19 intake structure. If the loss of fish is so small  
20 that it cannot be detected in relation to the total  
21 population in Lake Michigan or to the population in  
22 the area around the Cook Plant, then we would call  
23 that impact small. If the losses resulting from  
24 cooling system intake were large enough to cause a  
25 slight decline in the population, but then the

1 population stabilized at a lower level, then we  
2 would call that impact, moderate. If, however,  
3 the losses caused the populations to decline  
4 substantially and continue to decline - - in other  
5 words, they became unstable, then we would call that  
6 type of impact large. Next slide.

7 When the EIS team evaluated the impacts  
8 from continued operations at the Cook Nuclear Plant,  
9 we considered information from a wide variety of  
10 sources. First, we looked at the environmental  
11 report that the applicant prepared and included  
12 within the license renewal application. In March,  
13 we performed a site audit where EIS team members  
14 visited the site and the surroundings, interviewed  
15 plant personnel and reviewed documentation of plant  
16 operations. We also talked to federal, state and  
17 local agencies, permitting authorities and social  
18 services, basically to determine if there were  
19 concerns about the past operations of the Cook Plant  
20 and if those entities had any information that we  
21 might use in our impact analysis. And then lastly,  
22 we received public comments during the scoping  
23 period and included that information in our overall  
24 process. All of this information forms the basis  
25 for the analysis and preliminary conclusions that

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1 are in the draft EIS. Next slide.

2 The Cook EIS considers the environmental  
3 impacts of continued operations of Units One and Two  
4 during the 20-year license renewal term, that is  
5 2014 to 2034, for Unit One; and 2017 to 2037 for  
6 Unit Two. The impacts of routine operations were  
7 considered for the cooling system, for the  
8 transmission lines that were built to connect the  
9 Cook Plant to the electrical grid, for radiological  
10 issues, for socioeconomic issues such as jobs and  
11 education, for ground water use and quality, for  
12 threatened and endangered species, cumulative  
13 impacts, as well as for postulated accidents and  
14 severe accident mitigation alternatives. In this  
15 talk, I'm going to speak directly to the impacts of  
16 routine operations. Mark Rubin will talk about the  
17 impacts of the - - or the accident analysis that was  
18 performed by the NRC.

19 So one of the issues that we looked very  
20 closely at were the impacts of the cooling system at  
21 the Cook Plant. There are three Category Two issues  
22 relevant to that cooling system. Entrainment of  
23 fish and shellfish in early life stages, impingement  
24 of fish and shellfish, and heat shock. Entrainment  
25 refers to the pulling in of small organisms - -



1 aquatic organisms into the cooling system.

2 Impingement refers to the pulling in of  
3 larger organisms into the cooling system and those  
4 larger organisms become pinned on the debris screens  
5 that protect the cooling system from debris and  
6 other floating or suspended material in the water.

7 Heat shock occurs when relatively warm  
8 water is released into cool water. Aquatic  
9 organisms that are adapted to that cooler water can  
10 lose equilibrium or even die when exposed to  
11 significantly warmer water. All of these processes  
12 can result in mortality of organisms.

13 When we looked at the monitoring results  
14 and various studies that have been conducted, the  
15 numbers of organisms that have been entrained and  
16 impinged or affected by heat shock and the number -  
17 - those numbers relative to the overall populations  
18 in the lake and in that general area, we came to the  
19 conclusion that the potential impact in these areas  
20 would be small and that additional mitigation is not  
21 warranted.

22 There are also a number of Category One  
23 issues related to the cooling system that we looked  
24 at. Some issues - - some such issues are water use  
25 conflicts, accumulation of contaminants and

1 discharge of sanitary waste. In the generic EIS the  
2 NRC determined that the impacts associated with  
3 these category one issues would be small. We  
4 evaluated all information to see if there was any  
5 new and significant information for these issues.  
6 We did not find any and therefore, adopted NRC's  
7 generic conclusion that the impact of the cooling  
8 system for these Category One issues would also be  
9 small.

10 The radiological impacts of normal  
11 operations including radiation exposure to the  
12 public and occupational radiation exposures to the  
13 public was considered by the NRC in the generic  
14 Environmental Impact Statement and a determination  
15 was made that these were Category One issues. In  
16 other words, the impacts varied little across the  
17 various plants in the country, and that those  
18 impacts would be small over the 20-year license  
19 renewal period.

20 But because these releases are of  
21 concern to the public, I'm going to discuss these in  
22 a little bit more detail here. All nuclear plants  
23 release some radiological effluents to the  
24 environment. During our site visit, we looked at  
25 the documentation for effluent release and the

1 radiological monitoring program at Cook. We looked  
2 at how the gaseous and liquid effluents were treated  
3 and released, as well as how the solid wastes were  
4 treated, packaged and shipped from the site. We  
5 looked at how the applicant determines and  
6 demonstrates that they are in compliance with the  
7 regulation for release of radiological effluents.  
8 We also looked at data from on-site and near site  
9 locations that the applicant monitors for airborne  
10 releases and direct radiation and at other  
11 monitoring stations beyond the site boundary,  
12 including locations where water, milk, fish and food  
13 products are sampled.

14 We found that the maximum calculated  
15 doses for a member of the public are well within  
16 annual limits that are considered protective of  
17 human health. Since releases from the plant are not  
18 expected to increase during the 20-year license  
19 renewal term, and since we also found no new and  
20 significant information related to this issue, we  
21 adopted the generic conclusion in the generic EIS  
22 that the radiological impact on human health and the  
23 environment is small.

24 Impacts to threatened and endangered  
25 species is also considered a Category Two issue that

1 requires a site-specific review. Our evaluation  
2 considered those species that are known to occur or  
3 could occur in the vicinity of the Cook Plant or the  
4 transmission lines associated with the Plant. This  
5 slide shows the 11 species that could occur in the  
6 project area. We evaluated the locations of these  
7 species, their habitats, and the possibility of  
8 impacts over the 20-year license renewal period. We  
9 also discussed our findings with the US Fish and  
10 Wildlife Service that oversees implementation of the  
11 Endangered Species Act. The Fish and Wildlife  
12 Service concurred with our conclusion that  
13 relicensing would not affect these species.

14 Waste water disposal at the Cook Plant has  
15 the potential to affect ground water quality because  
16 the plant discharges processed waste water and  
17 sanitary wastes to two absorption ponds and two  
18 sewage lagoons on the site. And here are the  
19 absorption ponds and then the sewage lagoons next to  
20 those. These two disposal systems receive effluent  
21 that is treated, but then further treatment is  
22 provided by the natural soil column as the effluent  
23 flows through that soil column and into the  
24 underlying groundwater. Discharges flow ultimately  
25 into Lake Michigan.

1 Monitoring wells are used to regularly  
2 monitor groundwater quality in this area. This  
3 monitoring over the years has shown that groundwater  
4 quality has been in compliance with permit  
5 requirements and with national drinking water  
6 standards. And I might add that permits are  
7 regulated by the Michigan Department of  
8 Environmental Quality and that they oversee  
9 compliance with permits and standards.

10 On the basis of this information, we  
11 concluded that the impacts to groundwater quality  
12 would be small and that additional mitigation is not  
13 warranted. Next Slide.

14 We also considered cumulative impacts of  
15 operations. Cumulative impacts are those impacts  
16 that are minor when considered individually, but  
17 significant when considered with other past, present  
18 and future actions regardless of what agency or  
19 person undertakes those other actions. The staff  
20 considered cumulative impacts resulting from  
21 operation of the cooling water system, operation of  
22 the transmission lines, releases of radiation and  
23 radiological material into the environment,  
24 socioeconomic impacts, groundwater use and quality  
25 impacts, and impacts to threatened and endangered

1 species. And we looked at the cumulative impacts  
2 that would occur over the 20-year license renewal  
3 term. Our preliminary determination is that any  
4 cumulative impacts resulting from operation of the  
5 Cook Nuclear Plant during the license renewal period  
6 would be small.

7 We also looked at impacts to the uranium  
8 fuel cycle and solid waste management and  
9 decommissioning. In the generic EIS, the NRC  
10 considered impact areas associated with these topics  
11 as Category One issues. Our team found no new and  
12 significant information associated with these topics  
13 and therefore adopted the conclusion in the generic  
14 EIS that impacts in these areas would be small.

15 Cook Nuclear Plant Units One and Two have  
16 a combined capacity of over 2,000 megawatts. The  
17 EIS team evaluating the potential environmental  
18 impacts associated with the Cook Plant not  
19 continuing operation and replacing its generating  
20 capacity with alternative power sources. We looked  
21 at a no action alternative where the power capacity  
22 of the Cook Plant would not be replaced. We looked  
23 at replacement of that capacity with new generation  
24 from either coal, natural gas or new nuclear. We  
25 looked at replacement of that capacity with

1 purchased electrical power and then we looked at  
2 other alternatives including oil, wind, solar and  
3 conservation. And then we examined the impacts of a  
4 combination of those various alternatives.

5 For each alternative, we looked at the  
6 same types of issues that we looked at for the  
7 operation of the Cook Plant during the license  
8 renewal term. The team's preliminary conclusion is  
9 that the environmental impacts of alternatives - -  
10 of all alternatives reach moderate or large  
11 significance in at least some impact categories. So  
12 the impacts of all alternatives would have larger  
13 environmental impacts than the impacts of  
14 relicensing over the 20-year - - for another 20  
15 years. Next slide.

16 So our preliminary conclusions for the  
17 Category One issues presented in the generic EIS, we  
18 found no information that was both new and  
19 significant. Therefore, we have preliminarily  
20 adopted the conclusion that impacts associated with  
21 these issues are small.

22 In the supplement EIS, we analyzed the  
23 remaining Category Two issues pertinent to the Cook  
24 Plant as well as the issue of groundwater quality  
25 degradation associated with on-site disposal of

1 processed waste water and sanitary waste water,  
2 those impacts also would be small.

3 And lastly, we found that for all  
4 alternatives, at least in some impact categories,  
5 and this is usually related to the amount of land  
6 disturbance associated with building new capacity,  
7 that there would likely be moderate or large impact  
8 in some impact area.

9 So that concludes my talk. I'll turn this  
10 back to Chip and we can address questions.

11 FACILITATOR CAMERON: Okay. Thank you,  
12 Kirk. Are there any questions about the material  
13 that Kirk covered in regard to environmental  
14 impacts? Yes, sir? And just give us your name,  
15 too, please. Introduce yourself.

16 MIKE POLUHANYO: Yes, my name is Mike  
17 Poluhanoy and I'm a citizen here in Berrien County.  
18 I wonder if you could review and go back to the  
19 radiological impacts. You've concluded that the  
20 impact was small. Could you give us details how did  
21 you arrive exactly? I mean, is there some kind of  
22 numeric figure you came up that says it's small?  
23 And if so, what would be a figure or whatever that  
24 you would consider greater than small? Could you  
25 give us a little more details on the numbers in that



1 area, please?

2 KIRK LAGORY: As far as the radiological  
3 impacts, what we're doing to determine significance  
4 there is comparing it to regulatory requirements.  
5 To look at specific levels that are considered  
6 protective of human health. So we're comparing them  
7 against those standards. And those standards have  
8 been established by the EPA and others. What we've  
9 done is for our evaluation what we did, was we  
10 looked at the radiological effluent monitoring  
11 reports that are produced on an annual basis, looked  
12 at the results of that monitoring, looked at the  
13 off-site dose calculations that have been - - that  
14 have been conducted and determined whether or not  
15 those calculate either measured or calculated levels  
16 - - how they compared to those levels that are  
17 considered protective of human health. And in all  
18 cases, those levels were well below those standards.

19 MIKE POLUHANYO: I don't think that  
20 answers my question very well. I guess you seem to  
21 be generalizing. I'd like something a little bit  
22 more specific. I mean if there's than several  
23 categories, how you measure - - I was looking for  
24 some kind of measurement or something that would  
25 say, well, yeah, this is small and then - - you know

1       how do we - -

2                   KIRK LAGORY: 100 millirems, I believe is  
3       the dose that is considered - -

4                   MIKE POLUHANYO: That's what I'm - - Okay.

5                   KIRK LAGORY: Right.

6                   MIKE POLUHANYO: Okay. And it was well  
7       below that. That's what I wanted to know. Thank  
8       you.

9                   KIRK LAGORY: Right. Right.

10                  FACILITATOR CAMERON: Okay. So that does  
11       it. All right. Thank you, Kirk. And I think that  
12       the staff may after the meeting is over, give you  
13       some more specifics on that, too. Andy, do you want  
14       to add anything? Go ahead.

15                  ANDREW KUGLER: I did just want to mention  
16       one thing. Every year the Plant is required to  
17       issue a report. There's actually two reports that  
18       would be of interest. One is the effluent release  
19       report and that documents what effluents have been  
20       released by the Plant - - the measurements and an  
21       estimate of what that would mean in terms of doses.  
22       And there's also a second report, the radiological  
23       environmental monitoring report and Kirk mentioned,  
24       they do sampling of fish, of soil, of water, things  
25       like that and determine what is out there in the

1 environment. And again, I think all that  
2 information is then combined to estimate a dose to  
3 what's called a maximally exposed individual. A  
4 theoretical person who is in the worst place all the  
5 time and what their dose would be. And those doses  
6 are well below the limits that we're talking about.  
7 And we could get you information on those reports.

8 FACILITATOR CAMERON: Okay. Thanks  
9 Andy. Any other questions on the findings in the  
10 draft Environmental Impact Statement? Okay.  
11 Let's go on to severe accident mitigation  
12 alternatives, another part of the draft  
13 Environmental Impact Statement. And we have Mr.  
14 Mark Rubin from the NRC staff who's going to  
15 summarize those for us.

16 MARK RUBIN: Good afternoon. Shorter than  
17 most of the other people here. Thank you. When  
18 D.C. Cook was originally designed, it was designed  
19 to a rigorous set of design basis accidents which  
20 included both potential accidents plus failures plus  
21 system failures that were considered extremely  
22 unlikely in most cases, or possibly those that were  
23 considered as possible but not too likely. So  
24 there's a wide range of accidents the Plant was  
25 originally designed for. A full spectrum from the

1 more likely to the very, very unlikely. Now this  
2 has resulted in extensive safety systems being  
3 incorporated into the Plant that's resulted in a  
4 plant that meets our regulations and is a very safe  
5 plant.

6 In the last several years, techniques have  
7 been developed to assess very, very unlikely  
8 hypothetical accidents that could involve multiple  
9 failures and errors that could result in core damage  
10 to the Plant and some releases to the public. These  
11 are called severe accidents. The probability of  
12 these severe accidents are so small that we use a  
13 combination of mathematical models and probabilistic  
14 risk assessment model techniques to allow us to  
15 calculate the combination of failures that could  
16 lead to these severe accidents. These are the types  
17 of studies that are conducted to allow the staff to  
18 conduct a severe accident mitigation alternatives  
19 study. And going into this presentation, I just  
20 want to comment that PRA's are being conducted for a  
21 number of years and the techniques have been  
22 developed and refined. And this isn't the first  
23 time that a probabilistic risk assessment results  
24 have been considered for D.C. Cook. All plants in  
25 the US have conducted PRA studies. The results of

1 those studies have frequently been used to look for  
2 ways to improve the plants and improve safety. And  
3 so we're far down the road and PRA results have  
4 previously already been used to look for, find and  
5 implement improvements to the Plant to improve  
6 safety.

7 We'll go on to the next slide, please.

8 The SAMA process involves a number of steps. First  
9 of all, you have to characterize the overall plant  
10 risk using these probabilistic risk assessments. We  
11 call them PRA studies that are a combination of  
12 mathematical and risk models of the Plant. Those  
13 studies are used to identify potential improvements.  
14 Sometimes their improvements in plant systems,  
15 procedural steps, ways to improve the plant safety  
16 with respect to the severe accident risk, which is  
17 already very, very low at these plants.

18 The next step is to actually quantify  
19 the risk reduction potential using these PRA methods  
20 that would characterize both on-site and off-site  
21 risks to the public and to the plant operating staff  
22 on site and on-site costs. And also the  
23 implementation costs that would be involved to  
24 actually implement some of these improvements. So  
25 what we tried to do here is to look at ways to

1       reduce the low severe accident risk at the Plant  
2       even lower, what are the alternatives that are  
3       available to do that, what are the potential costs  
4       to achieve these small reductions in risk at the  
5       Plant.

6               And the final step is to determine whether  
7       implementation of any of these improvements is  
8       required to support the license renewal process.  
9       Next slide. Thank you.

10              The licensee provided a considerable  
11       amount of technical work to support the staff  
12       evaluation. There was a wide range of potential  
13       improvements that were considered. They started out  
14       with 194 candidate improvements. These include a  
15       pretty broad range of potential enhancements and  
16       improvements to the Plant that, as I said, has  
17       already been subjected in the past to a careful  
18       looking using PRA insights and techniques. But this  
19       was a re-look. And they looked again and they  
20       looked pretty broadly. These things included a  
21       number of improvements that have been considered at  
22       other plants going through license renewal. Other  
23       SAMA evaluations that have been conducted, other  
24       improvements for plants that are similar to theirs.  
25       A screening process was used to go through this

1 large list to cull them down because a number of  
2 them didn't really apply to this design at all. In  
3 some cases, the improvement that was being  
4 considered, had actually already been implemented in  
5 one manner or another at the Plant previously.

6 So this larger number was culled down to a  
7 set of 72 that was subjected to a more detailed  
8 cost/benefit study where the risk technique was  
9 refined a bit, the cost numbers were refined a bit  
10 to try to truly find those elements where the  
11 reduction in risk would be what we call cost  
12 beneficial. Namely, the benefit received economic,  
13 health, and so on, would be a benefit compared to  
14 the cost to implement the change.

15 When this evaluation was completed by the  
16 licensee, they had identified 16 actual plant  
17 enhancements that were potentially cost beneficial.  
18 And I say potential because at this stage, even  
19 though the analysis had been refined, in some cases  
20 it was optimistic, in some cases the calculation was  
21 done with quite a bit of additional margin put on  
22 it, namely, if the benefit was within a factor of -  
23 - if the cost was in a factor to the benefit, they'd  
24 go ahead and do it. What I mean by do it is put it  
25 into this list of cost beneficial enhancements.

1                   Now, these are calculated independently.  
2       Since they're in five groups, the reality in the  
3       calculational sense is if one were to make a few of  
4       these improvements, most of the calculational risk  
5       would be realized and you would not be able, for  
6       example, to sum all the individual benefits since  
7       they fell into a discrete small number of groups.

8                   When the evaluation was finished and the  
9       cost beneficial enhancements had been identified,  
10      these 16 items I mentioned, they fell into a number  
11      of areas. Some involved such issues as improving  
12      ventilation, cooling to rooms where the equipment in  
13      it needed to be kept at a certain temperature, they  
14      looked at ways to improve the diesel generators  
15      reliability, they looked at ways to improve the  
16      cooling of what's called seals of pumps so they  
17      wouldn't overheat and result in some loss of fluid.

18                  But when all these evaluations were  
19      completed and the cost beneficial items were  
20      identified, none of them were related to aging  
21      related issues. Consequently, under the conditions  
22      of license renewal rules, they're not candidates  
23      that are required to be implemented as part of the  
24      license renewal. However, as was done many times  
25      in the past when uses of PRA's were utilized to



1 attempt to identify plant improvements, these 16 are  
2 being considered by the licensee as part of their  
3 corrective action program. And they're refining the  
4 analysis and they'll be looking at what combination  
5 of the improvements they believe are worthwhile for  
6 amending in the Plant. And that concludes the  
7 presentation.

8 FACILITATOR CAMERON: Okay. Thank you,  
9 Mark. Do we have any questions for Mark on the  
10 severe accident mitigation alternatives? That  
11 analysis that he just talked about? Yes, sir, and  
12 if you don't mind, I'm going to call you Mike until  
13 I hear your last name again, because I know I'd  
14 probably mangle it. Mike?

15 MIKE POLUHANYO: Yes. I just have a  
16 question about the auxiliary building. As you look  
17 at the construction, the containments are very well  
18 constructed and very safe. However, the auxiliary  
19 building where the spent fuel pool is, would that be  
20 able to survive a plane crash, for example? Is that  
21 one of the alternatives that you look at? Have they  
22 looked at that possibility? Ever since 9-11, you  
23 know, I've been in there and I see that and that's a  
24 concern for me, I guess. And then also, - - I mean,  
25 for the rest of the workers as well as the local

1 citizen. If there were to be a plan to crash into  
2 the auxiliary building where the spent fuel pool is,  
3 that's not built quite as safe as the containments.  
4 Have you looked at that?

5 MARK RUBIN: Well, the security issues are  
6 under careful review, careful action by both the  
7 licensee and by the NRC. And it's not a topic,  
8 really, for this meeting. It would fall under the  
9 purview of the continuing operational safety  
10 consideration of the plant. And it would be under  
11 the safety purview rather than the environmental  
12 purview.

13 FACILITATOR CAMERON: So let me - - let me  
14 just clarify that for Mike. One thing that you're  
15 saying, Mark, is that in a SAMA evaluation, there  
16 would be no evaluation of potential accidents or  
17 incidents like that.

18 MARK RUBIN: That's correct.

19 FACILITATOR CAMERON: And, Andy, do you  
20 want to repeat anything from which you've said at  
21 the beginning about why security is not part of the  
22 license renewal? Maybe you could just say that  
23 again for Mike?

24 ANDREW KUGLER: Sure. What - - the  
25 approach we've taken on issues such as security and

1 emergency planning, is that these programs are  
2 continuously monitored and managed by the NRC  
3 throughout the life of the plant. It's not  
4 something that's going to be unique to license  
5 renewal to the extended period of operation. So the  
6 issues of security and the type of issue you raised,  
7 those are being dealt with today in the wake of 9-11  
8 through reviews by the staff in the security area.

9 Okay? There was one other thing I wanted  
10 to mention. Kirk looked up some information in the  
11 Environmental Impact Statement and the number for  
12 the dose limit annually, is 25 millirem. That's the  
13 correct number. So - - thank you.

14 FACILITATOR CAMERON: Okay. Thank you,  
15 Andy. Thank you, Mark. Any other questions? Yes,  
16 sir. And just introduce yourself to us, please?

17 LOU MATHIAS: Well, I'm Lou Mathias. I  
18 live here in Bridgman and I retired from the Cook  
19 Plant. And I'm just wondering whether the NRC  
20 thinks that the President is going to insist that  
21 they open the Yucca Mountain facility to take care  
22 of the spent fuel rods that are all over the  
23 country. Do you think that will ever happen?

24 FACILITATOR CAMERON: Okay. Thanks, Mr.  
25 Mathias. Andy, do you want to sort of give us an

1 overview on that?

2           ANDREW KUGLER: The best way I can answer  
3 that is this: The Commission has made a  
4 determination and actually embodied it in a rule  
5 that the Commission believes there will be a  
6 repository available for spent fuel by the year  
7 2025. And that there will be enough room in time to  
8 store spent fuel from plants within 30 years after  
9 the time that they cease operation. I don't want to  
10 speculate on what the President might or might not  
11 do. I really have no way to answer that question.  
12 How it will come about at this point. One of the  
13 things the Commission has documented in its reviews  
14 and they go back and they review this rule  
15 periodically, is that if something occurs that would  
16 potentially change the conclusion that they made,  
17 they would reinitiate the review. I don't know if  
18 we've reached that point yet on Yucca Mountain. I  
19 understand that there have been a number of things  
20 going on recently. We're all aware, I think, or a  
21 lot of people are aware of the recent court case  
22 that struck down the EPA rule - - or at least  
23 remanded it for further review. Don't know what the  
24 outcome of that is going to be, so it's very hard  
25 for us to predict. And all I can really say at this

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1 point is the Commission did make a finding, it is  
2 something that's suggestion to review if things  
3 change. But at this point, what the rule states is  
4 that there will - - we expect there will be a place  
5 for the fuel - - some room by the year 2025 and  
6 enough room by the time - - sometime after the  
7 plants cease operating to store it all.

8 FACILITATOR CAMERON: And just to put that  
9 in a little bit more perspective for you, Mr.  
10 Mathias, that the - - the waste confidence rule  
11 making that Andy is talking about is a generic  
12 finding of the Commission that they think that there  
13 will be a repository cited. Not necessarily the one  
14 that's being considered at Yucca Mountain. And in  
15 terms of the President's role, the President, in  
16 terms of Yucca Mountain has already directed the  
17 Department of Energy to file a license application  
18 with the Nuclear Regulatory Commission to site a  
19 repository there. So the President's role is  
20 finished now, and now if the Department of Energy  
21 submits a license application to us, we need to  
22 approve it. In other words, just like D.C. Cook  
23 needs to meet our regulations to get license  
24 renewal, the Department of Energy needs to meet our  
25 regulations to site a repository. And that will be

1 the next step along the way.

2 Do you have any other questions on that?

3 All right. Anything - - any other questions? Okay.

4 Let's go to Bill Dam, again, who is the  
5 environmental project manager and thank you, Mark,  
6 SAMA presentation. Bill's going to tell us about  
7 how to submit comments.

8 WILLIAM DAM: Thanks, Chip. First let me  
9 turn to our conclusions that we found that the  
10 impacts of license renewal are small in all areas.  
11 We also concluded that the alternatives actions,  
12 including the no action alternative, may have  
13 environmental effects in at least some impact  
14 categories that span the range of small, moderate to  
15 even large significance.

16 Based on these results, our preliminary  
17 recommendation is that operating the Donald C.  
18 Cook Nuclear Power Plant for an additional 20 years,  
19 that the environmental impacts would be small and  
20 therefore, the option to renew the license should be  
21 preserved for energy decision makers.

22 As I mentioned the NRC issued the draft  
23 Environmental Impact Statement in September. So  
24 what happens next? We have a 90-day comment period  
25 which runs until December. After that, we will

1 review and disposition the comments we receive here  
2 today, as well as any comments received by the  
3 comment period in December and we'll modify the  
4 draft Environmental Impact Statement that we've got  
5 available today and we'll prepare the final  
6 supplement to the Environmental Impact Statement.  
7 And we expect to provide that by May of 2005.

8 I want to let you know how you can get  
9 contact information. You can get a hold of me at  
10 this phone number, 800-368-5642, extension 4014. We  
11 also have the documents available at two local  
12 public libraries. One is the Bridgman Public  
13 Library right down the street at 4460 Lake Street.  
14 And the other one is in St. Joseph at the Maude  
15 Preston Palenske Memorial Library at 500 Market  
16 Street. So the documents are available there.  
17 They're also available on our NRC website at this  
18 address. If you have comments in addition to  
19 today's meeting that we're going to include in our  
20 impact statement, we also have ways - - three ways  
21 that you can provide those comments. One is by  
22 writing to us at this address. The second way is if  
23 you happen to be in the Rockville, Maryland area,  
24 we'd be happy to meet with you at our office. And  
25 the third way is by e-mail. We've set up a special

1 e-mail address just to receive your comments. And  
2 that address is CookEIS@nrc.gov.

3 All comments will be collected and  
4 considered and we'll respond to those comments. I  
5 want to take time to thank you for attending this  
6 meeting. Your attention has been very valuable to us  
7 in this process. And please take brochures in the  
8 back. We brought a lot. We would like to leave  
9 them here rather than take them back with us. And  
10 we have quite a few single copies of the draft  
11 Environmental Impact Statement we'd be happy to  
12 provide you. Also, we'd appreciate your filling out  
13 the feedback form. That's very important to us to  
14 help us in our future meetings. And I'll turn the  
15 meeting back over to Chip. Thank you very much.

16 FACILITATOR CAMERON: Okay. Thanks, Bill.  
17 Well, you've heard - - hear a lot of information  
18 from us. And now it's our opportunity to listen to  
19 some of the comments that you might want to give us  
20 in regard to the license renewal process. And first  
21 of all we're going to go to American Electric Power,  
22 Mr. Mano Nazar who is going to give us their  
23 perspective, their vision in terms of license  
24 renewal and Mr. Nazar is the Chief Nuclear Officer  
25 of AEP and also the Senior Vice President. Mr.



1 Nazar?

2 MANO NAZAR: Thank you very much. Can I  
3 use your microphone?

4 FACILITATOR CAMERON: Yes, absolutely.

5 MANO NAZAR: Feel more comfortable this  
6 way. It's great to be here. Thanks for coming.  
7 Members of the public, the NRC members and we  
8 appreciate you taking time from busy schedule to be  
9 here. We want to share with you a little bit from  
10 our perspective from American Electric Power. As it  
11 was said, I'm Mano Nazar. I'm Chief Nuclear  
12 Officer. The Site Vice President and Plant Managers,  
13 they directly report to me, including Vice President  
14 of the engineering. I have worked in this industry  
15 for 24 years at several power plants, Duke Energy  
16 which is in southern part of country in Carolinas,  
17 and then Nuclear Management Company which is in  
18 Midwest. I was responsible for four - - operation  
19 of four different plants prior to joining AEP. Next  
20 slide, please?

21 I want to share with you that before we  
22 actually applied and submitted an application,  
23 internally, we completed a lot of self-assessment to  
24 make sure that we as utility, we were satisfied with  
25 our operation and continuous operation of the Cook

1 before we applied for license renewal. The project,  
2 as I mentioned, started 2001, including the self-  
3 assessments that we conducted to make sure the  
4 effectiveness of our policies, programs and  
5 procedures and insure ourselves that we could  
6 continue to operate the facility for additional 20  
7 years. As it was indicated, Cook is rivaled today  
8 in the area of energy supply with respect to the  
9 safe, low-cost, reliable and environmentally  
10 friendly. The low cost, from that aspect, again,  
11 the customer is benefitting from that aspect of  
12 that.

13 November 2003, as you heard, that we  
14 submitted our application to the NRC for their  
15 review, and obviously as part of the process, on  
16 that flow-chart you notice, the part that was  
17 mentioned in March 2004, was the first visit at the  
18 site and public meeting and that, basically, kind of  
19 was valuable for the community to voice their  
20 opinion and we obviously took all of those feedback  
21 into account.

22 And you heard that publication of the  
23 Generic Environmental Impact Statement in September  
24 of 2004, and that's the draft version at this point.

25 I want to take a few minutes to just

1 describe how we operate our facility. And I think  
2 that probably benefits with respect to your  
3 understanding of why it's safe to continue operation  
4 of the Cook Nuclear Power Plant for additional 20  
5 years. Next slide, please

6 I want to show you kind of a visual image  
7 of our core values, which is based on prevention,  
8 detection and correction. Which is a little bit  
9 different than probably other industries. Our core  
10 values, our program, procedures, the way we operate  
11 the plant, is based on the foundation of prevention.  
12 And using the solid detection process to make sure  
13 that we're staying ahead of the issues. In order to  
14 do that, it requires a lot of, lot of work on the  
15 part of operating company to insure that we're  
16 staying a head of the issues and preventing the  
17 failures before the failures occur.

18 The license renewal process follows that  
19 particular core value that we have established at  
20 all sites, for our company, American Electric Power,  
21 to make sure that we are operating the facility in  
22 the safe, reliable manner while we're caring for  
23 employees and environment and community. That's the  
24 important aspect of our operation. Obviously, you  
25 heard from the members of the NRC that the self-

1 assessment - - independent assessment, however,  
2 showed that we have established that and our  
3 programs has been established such that they can  
4 satisfy that core value of the prevention.

5 As a result of that independent self  
6 assessment, obviously, you heard that no major  
7 issues with respect to the environmental aspect of  
8 our application including safety aspect of that have  
9 been identified. And as I mentioned in our  
10 information, core value is to operate our plant  
11 safely, be reliable while we're caring for the  
12 community. And doing that, we again, in  
13 preventative mode, doing a lot of activities to make  
14 sure that we are protecting the environment. Next  
15 slide please?

16 What's left for us to do? Obviously,  
17 we're going to continue working very closely with  
18 the project team - - you met most of them - - to  
19 make sure that any enhancements, any areas that can  
20 help us, we going to enhance our core values, that  
21 we continuously looking for those and improving the  
22 operation of our facility.

23 Public is always welcome to contact us  
24 directly. And we constantly sending out newsletters  
25 to the community and meeting with the community in

1 different forms and different shapes so to make sure  
2 that the information is widely and openly  
3 communicated with the members of the community.

4 License renewal definitely is the right  
5 thing for Cook, for this community and for American  
6 Electric Power. Looking forward to the NRC's  
7 decision next year, as you saw that's going to be  
8 made next year. We're really don't expect any major  
9 barriers at this point. We feel comfortable that we  
10 can overcome some minor enhancements and issues that  
11 may come out of - - out of the interfaces and  
12 reviews that are taking place at this point. And  
13 we're looking forward to operating our facility for  
14 an additional 20 years.

15 With respect to the questions that came up  
16 and I appreciate the question about the Yucca  
17 Mountain. I just want to also mention in addition  
18 to the NRC's effort, also, the industry's goal to be  
19 directly involved with some of those decisions. And  
20 we are not limiting our effort just to the Yucca  
21 Mountain. There are some additional efforts in - -  
22 at least, at work at this point with respect to some  
23 of the other facilities that we are working on to  
24 make sure that if Yucca Mountain doesn't come, you  
25 know, to reality in a timely manner, that we are

1 looking at some other alternatives. And we are  
2 working as industry. A lot of involvement from the  
3 Nuclear Energy Institute, the NEI, and also, like I  
4 said, from the utilities. There are obviously  
5 roughly about 63 plants involved with that and we  
6 need that kind of facility for the longer term  
7 operation of our facilities and we are working  
8 together to make that happen.

9 Any question that I can address from the  
10 American Electric Power side?

11 FACILITATOR CAMERON: Okay. Thank you  
12 very much, Mr. Nazar. Mr. Gast? Mr. John Gast, who  
13 is supervisor here in Lake Township. And I should  
14 just add our thanks for the use of this great  
15 facility, to Mr. Gast.

16 JOHN GAST: Good afternoon. I'd like to  
17 welcome you to our Township facility here on behalf  
18 of our Township Board of Trustees. As stated, I am  
19 John Gast. I am the Supervisor of Lake Township. I  
20 am a lifetime resident of the community of Lake  
21 Township and currently hold that position as  
22 supervisor. I have recently retired from a 26-year  
23 career in law enforcement. I have worked closely  
24 during that time with the Cook Nuclear personnel  
25 over many years. The Plant and its employees and

1 management have been great community partners and  
2 support many of our non-profit organizations in the  
3 area. The economic impact of Cook in this area, has  
4 afforded our citizens economic stability and growth  
5 as well as the Township's single largest employer,  
6 and I believe our county's third-largest employer.

7 The Township enjoys a water facility along  
8 with a sanitary water utility throughout the  
9 Township and one of the lowest tax millage in the  
10 county. Township residents also enjoy a wide range  
11 of services provided at no additional cost.

12 Before 9-11, the Cook Plant Visitor's  
13 Center was one of the Township's destination  
14 locations, as well as an opportunity for visitors  
15 and education. However, after the 9-11 event, that  
16 facility has been minimized to the public due to  
17 security concerns. The facility was a showcase for  
18 our community. The plant owners have always  
19 promoted safety and AEP is no exception to that.  
20 Operating with the safety of the public as a top  
21 priority and being stewards of our local  
22 environment. I have personally had no negative  
23 communications involving the relicensing of this  
24 plant and I am here today to support the relicensing  
25 effort into the year 2034 and 2037. Thank you.

1 FACILITATOR CAMERON: Okay. Thank you,  
2 Mr. Gast. Our next speaker/commenter is Mr. Kevin  
3 Ivers, who is Superintendent of Bridgman Public  
4 Schools. Mr. Ivers?

5 KEVIN IVERS: Thank you and good  
6 afternoon. I've also been employed by the Bridgman  
7 Public Schools for the past eight years. The school  
8 district has had a positive working relationship  
9 with D.C. Cook. We've shared - -they've shared  
10 their resources with us to enhance the education of  
11 our students in our district as well as throughout  
12 Berrien County. D.C. Cook employees and their  
13 families who reside in our community are important  
14 to our school district. Many serve as advisors and  
15 coaches on our athletic teams and other areas. The  
16 property tax revenues that are generated not only  
17 benefit our school district, but all public school  
18 districts throughout Michigan.

19 D.C. Cook has been a good neighbor and we  
20 fully support their process and their application  
21 for license renewal. Thank you.

22 FACILITATOR CAMERON: Thank you, Mr.  
23 Ivers. Next we're going to go to Ms. Anna Murphy.  
24 Anna. And Anna is United Way.

25 ANNA MURPHY: Good afternoon. United Way



1 has evolved over the past few years to become more  
2 than just a fundraiser. We've become advocates,  
3 facilitators and conveners. All of these roles that  
4 we can play towards creating community impact. We  
5 believe that the movement towards creating community  
6 impact or community changes can be achieved because  
7 of partners such as AEP. We have a long-standing  
8 history with AEP. AEP partners with United Way by  
9 providing teams for the annual Days of Caring, Make  
10 A Difference, which consists of over -- a total of  
11 1,600 volunteers that leverage over \$230,000 of  
12 volunteer labor in our community. AEP contributes  
13 to the annual campaign by raising well over \$200,000  
14 through both employee and corporate contributions,  
15 making it the second largest campaign in our  
16 community and a United Way Hall of Fame Company  
17 since 1998.

18 Also, we have been very fortunate over the  
19 past years to have representation from AEP on our  
20 Board of Directors as well as at the committee  
21 levels. The impact is huge, and with AEP's  
22 commitment, United Way and its partners were able  
23 to help people over 70,000 times last year. That's  
24 one in four lives. Thank you, AEP, for being here,  
25 as United Way continues to evolve to create

1 sustainable changes in our community.

2 FACILITATOR CAMERON: Thank you very much,  
3 Anna. And we're going to hear from Mr. Greg Korocho  
4 now who is with Lake Michigan College.

5 GREG KOROCH: Thank you. First of all,  
6 I'd like to say that I think today - - the results  
7 of today's hearings really confirms what we've  
8 always believed about Cook Nuclear Plan, is they  
9 really have an outstanding team of people who are  
10 really dedicated to helping make this place a great  
11 place to call home. So thank you, first of all, for  
12 that.

13 Second of all, I want to say that  
14 throughout the years, Cook and AEP have really been  
15 outstanding corporate partners. We commend them,  
16 first for their work and their commitment to  
17 education and training. They have demonstrated this  
18 on a number of fronts throughout the years. They  
19 have hosted on-site college open houses which more  
20 than 100 cook employees attended. We have worked  
21 with them to conduct work key profiles for  
22 maintenance technicians, we've piloted computer and  
23 electronics training classes with them. Members of  
24 the college staff and Cook meet monthly to discuss  
25 continuing education classes and discuss things like

1 classes to upgrade skills of staff with new  
2 technology degree programs, team building programs,  
3 technical lighting classes, OSHA and safety classes.

4 We applaud Cook's staff for their work in  
5 employee education. Again, I think the things that  
6 we see today really support that. Also, I think  
7 the work that we do with them really - - and the  
8 advice they provide us helps improve our programs  
9 across the board. All of our training programs we  
10 provide to other companies as well.

11 Finally, I'd like to acknowledge Cook and  
12 AEP as first-rate corporate citizens. I'm pleased  
13 that they've established an adult scholarship at the  
14 college for students pursuing technical and  
15 industrial manufacturing disciplines. Notably, they  
16 have, through that scholarship are targeting  
17 underemployed workers to help them gain the  
18 technical and academic skills they need to succeed  
19 in the high wage and high skill jobs in Southwest  
20 Michigan. So again, we thank Cook for their support  
21 and we've enjoyed working with them over the years.

22 FACILITATOR CAMERON: Thanks, Mr. Koroch.  
23 We're going to hear from Mr. Buzz Calvert at this  
24 point and Mr. Calvert is the President of the Board,  
25 I believe, for the Volunteer Center of Southwest

1 Michigan. All right.

2 H. E. "BUZZ" CALVERT: Good afternoon  
3 everybody. It's a pleasure to have the opportunity  
4 to talk about one of our good friends and good  
5 neighbors and that's our friends at Cook. They live  
6 in our communities, they're volunteers, they work in  
7 our schools, and of course, that's what the  
8 Volunteer Center is all about. We have offices in  
9 Niles and St. Joseph, Michigan. Our primary role is  
10 to serve the volunteer in our community, but we also  
11 serve over 200 non-profits in our community that  
12 support all of those components that I just  
13 mentioned to you.

14 Cook's been a good friend to us. They've  
15 provided us with an outstanding board member, about  
16 five years ago. Mr. Bill Shalk, who's helped with  
17 our marketing campaigns throughout the county,  
18 arranged for printing of posters when we've been a  
19 little low on our budgets from time to time. And  
20 certainly, we want to thank Cook for all of the  
21 support they've given to provide mentors for the  
22 various mentoring initiatives around our county,  
23 including opening up the Cook Information Center on  
24 two different years to provide education and fund  
25 and opportunity to match mentors with kids. And

1 that was certainly meaningful for a lot of kids in  
2 our community. We also know that they are involved  
3 with a lot of other fundraisers. We've heard about  
4 a couple of those today. One of our initiatives is  
5 called the Human Race. And it involves volunteers  
6 that support nonprofit agencies out on the roads of  
7 Berrien County and Cook has been good about  
8 providing posters for support of that race and also  
9 a few plotters in addition to that. So we're really  
10 thankful for that.

11 One of the Volunteer Center's primary  
12 products is called the "Wish Book". The "Wish Book"  
13 is an opportunity wherein those who have services or  
14 goods to give are matched with those who have a need  
15 in those areas. And Cook has been outstanding about  
16 covering the cost of our "Wish Book" through grants  
17 on at least one occasion.

18 In closing, I'd just like to say thank  
19 you, Cook and AEP for being good neighbors in our  
20 community and for supporting volunteerism and we  
21 look forward to working with you for many years to  
22 come. Thanks.

23 FACILITATOR CAMERON: Okay. Thank you,  
24 Mr. Calvert. Our next speaker is Mr. Mike Green  
25 from the Harbor Habitat for Humanity. Mr. Green?

1                   MIKE GREEN: Thank you and I also - - I'm  
2 Mike Green. I'm Executive Director of Harbor  
3 Habitat. It's a small, non-profit organization in  
4 Benton Harbor, Michigan. And we build houses for  
5 people who need them. I want to echo the comments  
6 by Greg Koroch at LMC, that I'm really encouraged at  
7 the process that you've undertaken in order to renew  
8 the license. I was also particularly pleased to see  
9 the team expertise slide that talked about the focus  
10 on the ecology, the hydrology and the socioeconomic  
11 and environmental justice issues related to the  
12 community and the impact that this institution has  
13 on our world. I'm glad that somebody is paying  
14 attention to that and I'm glad that I had an  
15 opportunity today to hear that and hear information  
16 about how you're going about this process. It was  
17 very educational for me.

18                   The Cook Nuclear Plant and its employees  
19 have been a very important part of our organization.  
20 We started as a small, non-profit in 1996, when in  
21 our community, there had been no permits given for  
22 single-family construction of houses, - - new  
23 construction - - in over 25 years. And that first  
24 year, in 1996, when we started building houses, the  
25 - - the employees of Cook and AEP donated some - -

1 some heat pumps for us and it really got us started.  
2 And it's really - - a great relationship has grown  
3 from that. Bob Story, who was an employee at AEP,  
4 is our Board President now. And we've had some just  
5 wonderful success over the years.

6 This year, we built four houses. And AEP  
7 and the Cook Plant have been leaders in our efforts  
8 to bring corporate sponsors to the table to help  
9 eradicate substandard housing in our community. And  
10 I'm very pleased to say that AEP did support us by  
11 constructing one house and next year, President  
12 Jimmy Carter is coming to our community and is going  
13 to help us as we focus on more construction. And I  
14 understand that the Cook Plant is committed to  
15 sponsorship levels of that also.

16 The important thing that I want to say  
17 today is that the employees and the leadership at  
18 Cook and AEP have been tremendous sponsors and  
19 corporate sponsors and tremendous supporters of our  
20 efforts in our community. And I just can't say  
21 enough for the expertise that those employees bring  
22 to us. The people who want to live and live in our  
23 homes want a quality product and the employees at  
24 AEP know how to build a house. They know their  
25 jobs well at the Cook Plant, but they also know how

1 to do other things. And it's just great to have  
2 leadership there that can really enhance our ability  
3 to get the job done and get it done well.

4 But particularly, the leadership at the  
5 organization really drives the culture and the  
6 volunteer culture at Cook and I think some of the  
7 other non-profits and the organizations that have  
8 spoken before me have already said that. And  
9 there's a very valuable resource and I think it goes  
10 without saying that the employees of Cook are really  
11 leaders and really drive change in our community and  
12 it's very valuable to have them in our community.

13 So I do support the license renewal. We  
14 do have an office located in downtown Benton Harbor  
15 which is a distressed city in our county. And it is  
16 named AEP Community Center because that facility was  
17 fully funded and constructed by the employees of  
18 Cook Nuclear Plant. That made a public statement to  
19 our community that as an organization we were there  
20 to stay and we were going to have an impact over the  
21 long term. And I really appreciate the support that  
22 Cook and the employees of that organization have  
23 given to us in providing the visual statement to our  
24 community and it helped us tremendously. So I want  
25 to thank you all for that.



1                   And so I do support the license renewal  
2                   and I hope that all goes well with the process.  
3                   Thank you.

4                   FACILITATOR CAMERON:   Okay.   Thank you,  
5                   Mr. Green for those remarks.   That's our last  
6                   speaking for this afternoon.   And we're going to be  
7                   back tonight at seven for another meeting and an  
8                   open house beginning at six.   And I would just thank  
9                   you all for coming out and I'm going to ask Andy  
10                  Kugler to just say a few words to close this  
11                  afternoon's meeting for us.   Andy?

12                  ANDREW KUGLER:   Well, mainly, I just want  
13                  to say thank you all for coming out.   Appreciate you  
14                  taking the time to be here.   I hope that the  
15                  information we provided will help you and that it  
16                  gives you something that you can use.   If you do  
17                  have any comments beyond the scope of this meeting,  
18                  there are ways, as mentioned in the slides, for you  
19                  to provide us with those comments, and we would  
20                  encourage you to do that.   We - - we want to do the  
21                  best job we can and we'd like to get your input.

22                  And as Bill mentioned, if you could fill  
23                  out a meeting feed-back form, we'd appreciate that  
24                  as well.   We try and do better each time we do these  
25                  meetings, and we're always looking for ideas on how

1 to go about doing that. So we'd appreciate that.  
2 And with that, again, thank you for being here.

3 FACILITATOR CAMERON: One more thing.

4 ANDREW KUGLER: Oh, Chip has something  
5 more to say.

6 FACILITATOR CAMERON: Just one last  
7 comment which - - I want to make sure that - - is it  
8 Mr. Poluhanyo?

9 MIKE POLUHANYO: Yes. My name is Mike  
10 Poluhanyo. Just a quick comment so this is  
11 unplanned. So - - I've been a worker at the Cook  
12 Plant for many outages in past years and some of  
13 those have been full time and stuff. And so I just  
14 want to say the Cook Plant has been a very good  
15 employer and a good neighbor also, on behalf of the  
16 citizens of Berrien County and they provide  
17 employment for not only our local citizens, but a  
18 lot of citizens from out of town. And we do help  
19 out the local economy because as an example, our  
20 last night - - the night after we were laid off, all  
21 of us got together and we had, like, dinner at a  
22 local restaurant. And before everybody goes back to  
23 their separate, other states and stuff. So they've  
24 been a good employer and it helps out the local  
25 economy a lot. So thanks. And we also do wish

1 success on the renewal, too.

2 FACILITATOR CAMERON: Great. Thank you.

3 Let me make sure that - - anybody else want to  
4 comment before we close? Okay. Thank you very  
5 much.

6 (At 3:02 p.m., public meeting concluded)

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