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Evening Session

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U. S. NUCLEAR REGULATORY COMMISSION

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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 - EVENING SESSION

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TUESDAY

NOVEMBER 9, 2004

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BRIDGMAN, MICHIGAN

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The meeting was held at 7:00 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

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1
2 FACILITATOR CAMERON: If everybody could
3 take a seat, we'll get started with - - with today's
4 meeting. Good evening, everyone. My name is Chip
5 Cameron and I'm the Special Counsel for Public
6 Liaison at the United States Nuclear Regulatory
7 Commission and it's my pleasure to welcome you all
8 to the NRC's public meeting tonight. And the
9 subject of the meeting is going to focus on the
10 draft Environmental Impact Statement that the NRC
11 has prepared to help us in our evaluation of an
12 application that we received from Indiana Michigan
13 Power Company to renew the operating licenses at the
14 D.C. Cook Plant for both Units One and Two at D.C.
15 Cook.

16 And I'm going to be your facilitator
17 tonight, and I will just try to help all of you to
18 have a productive meeting this evening. I just
19 want to cover a couple of things about meeting
20 process before we go on to the substance of today's
21 discussion.

22 First of all, our format for the meeting
23 is basically going to be a two-part format. In the
24 first part of the meeting, we're going to give you
25 some background information on the NRC's license

1 renewal evaluation process and specifically, on the
2 findings and conclusions in the draft Environmental
3 Impact Statement that we prepared. And we'll go out
4 to you for any questions that you might have about
5 that.

6 Before we get into the second part of
7 the meeting, which is to give us an opportunity to
8 hear from all of you in terms of any advice,
9 recommendations, concerns that you might want to
10 express to us about the draft Environmental Impact
11 Statement. As the NRC staff will tell you, we are
12 taking written comments on the draft Environmental
13 Impact Statement, but we're here today to meet with
14 you in person on these issues. And let me assure
15 you that anything that is said today will carry the
16 same weight as a written comment.

17 And in terms of ground rules: Very
18 simple. During the question part of the meeting - -
19 during the first part of the meeting, if you have a
20 question, just signal me, and I'll bring you this
21 cordless microphone. Give us your name and
22 affiliation, if appropriate. And we'll try to
23 answer your question.

24 We are taking a transcript. Tracy is
25 our electronic court reporter/transcriptionist here,

1 and that will be our record of the meeting and it
2 will be available to any of you who want to have a
3 copy of that transcript.

4 When we get to the second part of the
5 meeting, we'll call you to come up to the podium to
6 speak to us. If you feel more comfortable staying
7 where you are and speaking into the cordless mike,
8 we can do that also. And usually, I ask people to
9 try to be concise and we have a five-minute
10 guideline for the formal comments, but I don't think
11 we're going to have any problem in terms of time
12 today. So just keep the five minutes in mind. But
13 it is a guideline, and if you go over a little bit,
14 that's fine.

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

1 overview of license renewal.

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

6 After they're done, we'll see if there's
7 any questions about the process overall. And then
8 we're going to go to the heart of the meeting today,
9 which is the conclusions in the draft Environmental
10 Impact Statement, and we have Mr. Kirk LaGory here.
11 Kirk is one of our expert consultants and he's the
12 team leader of the experts that we have working to
13 prepare this Environmental Impact Statement. He'll
14 talk about the conclusions there. Again, we'll go
15 out for questions to you.

16 And then we're going to go to a
17 specialized part of the draft Environmental Impact
18 Statement and this is something called the Severe
19 Accident Mitigation Alternatives. We have Mr. Bob
20 Palla with us right here today, who's going to talk
21 to that, go out to you for questions again, and then
22 we're going to go back to Mr. Bill Dam to tell us
23 about some conclusions. And that's going to be our
24 agenda for today.

25 And in terms of some more details on our

1 presenters, Mr. Kugler has been with the NRC for
2 about 24 - -

3 ANDREW KUGLER: No. NRC 14 years.

4 FACILITATOR CAMERON: Fourteen years
5 with NRC and before that, he was with a utility in
6 Louisiana. He was in the Navy Submarine Service.
7 He has just been appointed as the Section Chief for
8 the Environmental Review Section, a few months ago.
9 He has a Bachelor of Science in mechanical
10 engineering from Cooper Union in New York City, and
11 a Master of Science in technical management from
12 Johns Hopkins University.

13 And Bill Dam who is the project manager
14 on the environmental review, again, he works for
15 Andy. He's been with the NRC for about seven years,
16 and he was an environmental consultant before that.
17 He worked for the United States Geological Service
18 as a hydrogeologist. And he has a Bachelor's
19 Degree in geology from Guildford College in
20 Greensboro North Carolina, and a Master's degree in
21 Geology from the University of Wyoming.

22 We have Dr. Kirk LaGory with us. He's
23 the team leader on the Environment review and he'll
24 be telling us about the conclusions in that
25 particular document.

1 There's a special part of the draft
2 environmental impact statement called Severe
3 Accident Mitigation Alternatives or SAMA's is the
4 acronym that we like to use. And we have Mr. Bob
5 Palla here from the NRC staff who is going to talk
6 about that, and we'll go to you for any questions
7 and then Bill Dam is going to conclude that first
8 part of the meeting by telling us overall
9 conclusions and how to submit written comments.

10 Now, did I leave anybody out? Speaking.
11 I think I covered everybody, but that gives you an
12 idea of what their credentials are and I just would
13 thank all of you for coming out to be with us for
14 today's meeting. And I'll turn it over to Andy.

15 ANDREW KUGLER: Thank you, Chip. Thank
16 you all today for coming to our meeting today. I
17 hope that the information we provide to you will be
18 helpful and will help you to understand the process
19 that we're going through right now, what we've done
20 so far in that process, and the role that you can
21 play in helping to insure that our final
22 environmental statement is an accurate document.

23 First let me provide some general
24 context on license renewal. The Atomic Energy Act
25 gives the NRC the authority to issue operating

1 licenses for nuclear power plants for a period of
2 forty years. For D.C. Cook, Units One and Two,
3 these licenses will expire in the years 2014 and
4 2017 respectively.

5 Our regulations also make provisions for
6 us to grant 20-year extensions to operating
7 licenses. And the Indiana Michigan Power Company
8 has requested extensions of the licenses for Cook
9 units one and two. As part of the NRC's review of a
10 license renewal application, we perform an
11 environmental review to look at the impacts of
12 running the units for an additional 20 years. We
13 held a meeting here back in March where we discussed
14 the scope of our review, and we've returned now to
15 go over the preliminary results of our review as
16 discussed in the draft Environmental Impact
17 Statement. And to give you an opportunity to ask
18 questions or provide comments on the draft. Next
19 slide.

20 Before I get into the discussion of the
21 license renewal process itself, I'd like to take a
22 minute to talk about the NRC in terms of what we do
23 and what our mission is. As I mentioned, the Atomic
24 Energy Act is a legislation that authorizes us to
25 regulate the civilian use of nuclear materials in

1 the United States.

2 In exercising that authority, the NRC
3 has a three-fold mission. The first is to insure
4 the adequate protection of the public health and
5 safety. We also have a mission to protect the
6 environment, and finally, to insure the common
7 defense and security. The NRC accomplishes its
8 mission through a combination of regulatory programs
9 and processes, such as inspections, enforcement
10 actions, assessments of licensee's performance, and
11 the evaluation of operating experience at the plants
12 throughout the country.

13 Turning now to license renewal, the
14 review that we perform is very similar to the review
15 that was performed when these plants were originally
16 licensed. And in that regard, there are really two
17 parts to the review. A safety review and an
18 environmental review.

19 The safety review includes a safety
20 evaluation, plant inspections and audits, and an
21 independent review by the Advisory Committee on
22 Reactor Safeguards. Also referred to as the ACRS.
23 Now there are two basic types of safety issues that
24 we might be looking at. One is the current issues
25 at the plant and these are dealt with today and on

1 an on-going basis. And the other issues related to
2 aging management or the aging of equipment at the
3 plant. And these are dealt with in license renewal.

4 Under the current operating license, the
5 NRC's oversight process monitors current issues and
6 responds to those issues. We don't wait until an
7 application for license renewal to deal with the
8 current issues at a plant. And because the NRC has
9 or is dealing with issues such as security and
10 emergency planning on a continuing basis, we don't
11 reevaluate them in our license renewal review.

12 Instead, the license renewal safety
13 review focuses on aging management issues and the
14 programs that the licensee either has or will have
15 in place to maintain the equipment safely. We look
16 at specific groups of components and make a
17 determination whether current or planned programs
18 will insure that the issues related to aging are
19 detected and properly managed for the period of
20 extended operation. The results are then documented
21 in a safety evaluation report.

22 That report is independently reviewed
23 by the ACRS. Now, the ACRS is a group of technical
24 experts in nuclear safety, and they serve as a
25 consulting body for the Commission. They'll review

1 each license renewal application and the safety
2 evaluation report and make their own determinations
3 and conclusions and then report those independently
4 to the Commission.

5 In relation to the environmental review
6 which Mr. Bill Dam will discuss in more detail in a
7 few minutes, we evaluate the impacts of the
8 continued operation of the Plant in a number of
9 areas. These would include ecology, hydrology,
10 cultural resources, socioeconomic and a number of
11 other areas.

12 Next slide please. This slide gives a
13 graphic representation of the license renewal
14 process. As I indicated, there's two basic paths in
15 this review. The upper path is the safety review
16 and then the lower path is the environmental review.

17 The safety review involves the staff's
18 review and assessment of safety information that was
19 provided in the licensee's application. There's a
20 team of about 30 NRC technical reviewers and
21 contractors who are involved in conducting this
22 review. The safety review focuses on the
23 effectiveness of the aging management programs for
24 the plant systems and structures that are within the
25 scope of license renewal. The NRC staff reviews the

1 effectiveness of these programs to insure that the
2 plant can be safely maintained throughout the
3 license renewal term.

4 The safety review process also involves
5 audits and on-site inspections. These inspections
6 are conducted by a team of inspectors pulled from
7 both headquarters and our regional office. We have
8 a representative of our inspection program here
9 today and he's the senior resident inspector at D.C.
10 Cook. His name is Brian Kemker. Brian, if you
11 could. We also have an individual from the Region
12 Three office and that's Patricia Lougheed.

13 The results of the inspections are
14 recorded in separate inspection reports and these
15 results and the results of the staff's aging
16 management review will be documented in the safety
17 evaluation report. As I mentioned, that report will
18 then be provided to the ACRS for its independent
19 review. Two of the on-site inspections have been
20 completed and we are in the process of preparing the
21 safety evaluation report right now.

22 The second part of the review process
23 involves the environmental review. The scoping
24 activities that were carried out earlier and the
25 development of a draft supplement to the Generic

1 Environmental Impact Statement for License Renewal
2 of Nuclear Power Plants, a document we refer to as
3 the GEIS. The draft Environmental Impact Statement
4 has been published for comment and we're here
5 tonight to briefly discuss the results and to
6 receive your comments. We expect to issue the
7 final Environmental Impact Statement in May of next
8 year. And this will incorporate any comments we
9 receive here today and any comments we receive in
10 writing during the comment period.

11 So as you can see from this slide, there
12 are a number of things that will go into the
13 Commission's eventual decision as to whether or not
14 to approve license renewal for D.C. Cook Units One
15 and Two. There needs to be a Safety Evaluation
16 Report, an Environmental Impact Statement, the
17 inspection reports from the region, and the
18 independent review by the ACRS.

19 I'd like to point out the splash symbols
20 on the slide. These indicate opportunities for
21 public involvement in the review. The first
22 opportunity occurred during the scoping period back
23 in March when we gave people an opportunity to
24 provide inputs on what the scope of our review
25 should be. We held meetings here at that time and

1 some of you may have attended that meeting.

2 This meeting on the draft Environmental
3 Impact Statement is another opportunity. It is also
4 an opportunity to request a formal adjudicatory
5 hearing on the license renewal review. This hearing
6 would have taken place in front of an Atomic Safety
7 and Licensing Board panel. However, no one
8 requested a hearing and so that portion of the
9 review is not applicable here. And then, finally,
10 the ACRS meeting to discuss the results of the
11 safety review will be open to the public.

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

15 WILLIAM DAM: Thanks, Andy. My name is
16 Bill Dam and I'm the environmental project manager.
17 My responsibility is to coordinate the efforts of
18 NRC staff including a team from national
19 laboratories who have expert knowledge in various
20 environmental fields, and help us prepare the
21 Environmental Impact Statement.

22 The National Environmental Policy Act of
23 1969 requires a systematic approach in evaluating
24 impacts of proposed major federal actions.
25 Consideration is given to the environmental impacts

1 of the proposed action, the mitigation for any
2 impacts that are believed to be significant.
3 Alternatives taken into account and no action
4 alternatives on the applicant's request are also
5 considered.

6 The Environmental Impact Statement is a
7 disclosure tool and it involves public
8 participation. NRC regulations require that an
9 Environmental Impact Statement be prepared for the
10 proposed license renewal activities. So we're
11 here today to collect public comments on the draft
12 statement and include those comments on the final
13 report.

14 This slide defines our legal decision
15 standard that follows from our environmental
16 analysis. It basically asks two questions: Is the
17 license renewal acceptable from an environmental
18 standpoint; and secondly, should the option for
19 extending power plant operations be preserved. We,
20 at the NRC, do not decide whether the D.C. Cook
21 plant actually operates an additional 20 years.
22 That decision is left up to the power company, to
23 the state regulators, and other people who make that
24 final decision for continuing plant operations.

25 On slide five - - Andy already described

1 the overall safety and environmental process. Here
2 we have a more detailed environmental process slide
3 that we go through in evaluating an application for
4 license renewal. The Indiana Michigan Power Company
5 submitted their application for license renewal to
6 the NRC on October 31, 2003. We subsequently put
7 formal notice in the Federal Register that we would
8 prepare an Environmental Impact Statement associated
9 with that application. The Federal Register notice
10 began the scoping process, which invited public
11 participation early in the process. We conducted a
12 scoping meeting in early March of that year to
13 examine the bounds of our environmental evaluation.

14 We also brought a team of experts from
15 national labs to examine inside and outside the
16 power plant, to review a substantial volume of
17 information that was available to us and also to
18 interview site personnel as well as going out into
19 the community and meeting with local and state
20 officials. If, after all that activity, we still
21 don't have all the information that we need to help
22 us prepare draft Environmental Impact Statement, we
23 send out a formal request for additional information
24 that is sent to the applicant. So three weeks after
25 we performed our site audit, we prepared and sent

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1 out a request for information on those remaining
2 issues or concerns that we had.

3 After we get back the answers to the
4 request for information and we examine all the
5 information we have, we put that into and issue a
6 draft Environmental Impact Statement. We issued the
7 draft supplement to the Generic Environmental Impact
8 Statement about six weeks ago. And in a few
9 minutes, we'll be hearing from Dr. Kirk LaGory, the
10 Argonne National Lab Team Leader, who will share the
11 results of our findings.

12 Presently, we're in the middle of the
13 public comment period on the draft statement which
14 will expire in about five weeks. Once we get all
15 the public comments in, including what we receive at
16 this meeting, then we will evaluate all that and
17 publish a final Environmental Impact Statement. Our
18 schedule presently provides for the final
19 Environmental Impact Statement to be published May,
20 2005.

21 For the moment, that concludes my
22 remarks and I'd be happy to entertain questions.
23 I'll turn the mike over to Chip.

24 FACILITATOR CAMERON: Thank you, Andy.
25 Thanks, Bill. Any questions on process at this

1 point before we go on? Okay. Great. We're going
2 to go to Dr. Kirk LaGory now to tell us about what
3 the findings are in the draft Environmental Impact
4 Statement.

5 KIRK LAGORY: Thank you, Chip. Again,
6 my name is Kirk LaGory. I am an ecologist at
7 Argonne National Laboratory and I was the project
8 team leader for the Cook Plant EIS. The NRC
9 contracted with Argonne and Pacific Northwest
10 National Laboratory to provide the expertise
11 necessary to evaluate the impacts of license renewal
12 at the Cook Nuclear Plant. The EIS team consists
13 of scientists from the two national laboratories as
14 well as NRC staff. This slide shows the team
15 expertise represented by those staff. We really
16 cover the full range of possible impact area growing
17 from air, human systems, socioeconomics, things like
18 jobs, education, environmental justice issues,
19 archeology, historical resources. Issues associated
20 with - - with the land. Terrestrial ecology and
21 land use. Issues associated with the water. Things
22 like aquatic ecology, hydrology, both surface water
23 and ground water hydrology. And then we also look
24 at radiation protection and regulatory compliance
25 issues. Next slide.

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

16 The NRC was unable to make generic
17 conclusions about the remaining 23 issues. These
18 were called Category Two issues. And determined
19 that a site-specific supplemental EIS would have to
20 be prepared to cover those Category Two issues. And
21 it is the supplement for the Cook plant that we're
22 talking about today.

23 So this slide shows the process that we
24 used. We looked at the Category One issues relevant
25 to the Cook Plant to determine if the conclusion in

1 the Generic EIS was still valid. Specifically, we
2 looked for any new and significant information that
3 might change that conclusion. If we found no
4 significant information or new information, we
5 adopted the conclusions in the Generic EIS. If,
6 however, new and significant information was
7 identified, then a site-specific analysis was
8 performed.

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

21 In the generic EIS, the NRC defined
22 three impact levels: Small, moderate and large.
23 And the definitions for those impact levels are
24 provided in this slide. A small effect would not be
25 detectable or would be too small to destabilize or

1 noticeably alter any important attribute of the
2 resource under consideration.

3 A moderate effect would be one that is
4 sufficient to noticeably alter a resource but not
5 destabilize important attributes of that resource.

6 And then a large effect is one that
7 would be clearly noticeable and would be sufficient
8 to destabilize important attributes of the resource.

9 To illustrate the way we use these
10 impact levels, I'm going to talk about the Lake
11 Michigan Fishery. The operation of the Cook Plant
12 may cause the loss of fish at the cooling system
13 intake structure. If the loss of fish is so small
14 that it cannot be detected in relation to the total
15 population in Lake Michigan or to the population in
16 the area around the Cook Plant, then we would call
17 that impact small. If the losses resulting from
18 cooling system intake were large enough to cause a
19 slight decline in the population, but then the
20 population stabilized at a lower level, then we
21 would call that impact, moderate. If, however,
22 the losses caused the populations to decline
23 substantially and continue to decline - - in other
24 words, they became unstable, then we would call that
25 type of impact large. Next slide.

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

21 The Cook EIS considers the environmental
22 impacts of continued operations of Units One and Two
23 during the 20-year license renewal term, that is
24 2014 to 2034, for Unit One; and 2017 to 2037 for
25 Unit Two. The impacts of routine operations were

1 considered for the cooling system, for the
2 transmission lines that were built to connect the
3 Cook Plant to the electrical grid, for radiological
4 issues, for socioeconomic issues such as jobs and
5 education, for ground water use and quality, for
6 threatened and endangered species, cumulative
7 impacts, as well as for postulated accidents and
8 severe accident mitigation alternatives. In this
9 talk, I'm going to speak directly to the impacts of
10 routine operations. Bob Palla will talk about the
11 impacts of the - - or the accident analysis that was
12 performed by the NRC.

13 So one of the issues that we looked very
14 closely at were the impacts of the cooling system at
15 the Cook Plant. There are three Category Two issues
16 relevant to that cooling system. Entrainment of
17 fish and shellfish in early life stages, impingement
18 of fish and shellfish, and heat shock. Entrainment
19 refers to the pulling in of small organisms - -
20 aquatic organisms into the cooling system.

21 Impingement refers to the pulling in of
22 larger organisms into the cooling system and those
23 larger organisms become pinned on the debris screens
24 that protect the cooling system from debris and
25 other floating or suspended material in the water.

1 Heat shock occurs when relatively warm
2 water is released into cool water. Aquatic
3 organisms that are adapted to that cooler water can
4 lose equilibrium or even die when exposed to
5 significantly warmer water. All of these processes
6 can result in mortality of organisms.

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

16 There are also a number of Category One
17 issues related to the cooling system that we looked
18 at. Some issues - - some such issues are water use
19 conflicts, accumulation of contaminants and
20 discharge of sanitary waste. In the generic EIS the
21 NRC determined that the impacts associated with
22 these category one issues would be small. We
23 evaluated all information to see if there was any
24 new and significant information for these issues.
25 We did not find any and therefore, adopted NRC's

1 generic conclusion that the impact of the cooling
2 system for these Category One issues would also be
3 small.

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

13 But because these releases are of
14 concern to the public, I'm going to discuss these in
15 a little bit more detail here. All nuclear plants
16 release some radiological effluents to the
17 environment. During our site visit, we looked at
18 the documentation for effluent release and the
19 radiological monitoring program at Cook. We looked
20 at how the gaseous and liquid effluents were treated
21 and released, as well as how the solid wastes were
22 treated, packaged and shipped from the site. We
23 looked at how the applicant determines and
24 demonstrates that they are in compliance with the
25 regulation for release of radiological effluents.

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1 We also looked at data from on-site and near site
2 locations that the applicant monitors for airborne
3 releases and direct radiation and at other
4 monitoring stations beyond the site boundary,
5 including locations where water, milk, fish and food
6 products are sampled.

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

17 FACILITATOR CAMERON: Mr. Pielemeier, do
18 you have a quick question for us now?

19 JOHN PIELEMEIER: Well, I was just
20 wondering whether - -

21 FACILITATOR CAMERON: Let's get you on
22 the record.

23 JOHN PIELEMEIER: Thank you. In general
24 with the nuclear generating plants what is the
25 history of any incidents of leukemia or anything of

1 that sort among operating personnel?

2 FACILITATOR CAMERON: And let's - -
3 let's get to that question, but let's let him do the
4 rest of his presentation and then we'll come back to
5 that. Okay?

6 JOHN PIELEMEIER: Okay.

7 FACILITATOR CAMERON: Do you want to
8 continue and then we'll go on to answer his
9 question.

10 KIRK LAGORY: Okay. Sure. Next slide.
11 Impacts to threatened and endangered species is also
12 considered a Category Two issue that requires a
13 site-specific review. Our evaluation considered
14 those species that are known to occur or could occur
15 in the vicinity of the Cook Plant or the
16 transmission lines associated with the Plant. This
17 slide shows the 11 species that could occur in the
18 project area.

19 We evaluated the locations of these
20 species, their habitats, and the possibility of
21 impacts over the 20-year license renewal period. We
22 also discussed our findings with the US Fish and
23 Wildlife Service that oversees implementation of the
24 Endangered Species Act. The Fish and Wildlife
25 Service concurred with our conclusion that

1 relicensing would not affect these species. Next
2 slide.

3 Waste water disposal at the Cook Plant has
4 the potential to affect ground water quality because
5 the plant discharges processed waste water and
6 sanitary wastes to two absorption ponds and two
7 sewage lagoons on the site. And here are the
8 absorption ponds and then the sewage lagoons next to
9 those. These two disposal systems receive effluent
10 that is treated, but then further treatment is
11 provided by the natural soil column as the effluent
12 flows through that soil column and into the
13 underlying groundwater. Discharges flow ultimately
14 into Lake Michigan.

15 Monitoring wells are used to regularly
16 monitor groundwater quality in this area. This
17 monitoring over the years has shown that groundwater
18 quality has been in compliance with permit
19 requirements and with national drinking water
20 standards. And I might add that permits are
21 regulated by the Michigan Department of
22 Environmental Quality and that they oversee
23 compliance with permits and standards.

24 On the basis of this information, we
25 concluded that the impacts to groundwater quality

1 would be small and that additional mitigation is not
2 warranted. Next Slide.

3 We also considered cumulative impacts of
4 operations. Cumulative impacts are those impacts
5 that are minor when considered individually, but
6 significant when considered with other past, present
7 and future actions regardless of what agency or
8 person undertakes those other actions. The staff
9 considered cumulative impacts resulting from
10 operation of the cooling water system, operation of
11 the transmission lines, releases of radiation and
12 radiological material into the environment,
13 socioeconomic impacts, groundwater use and quality
14 impacts, and impacts to threatened and endangered
15 species. And we looked at the cumulative impacts
16 that would occur over the 20-year license renewal
17 term. Our preliminary determination is that any
18 cumulative impacts resulting from operation of the
19 Cook Nuclear Plant during the license renewal period
20 would be small.

21 We also looked at impacts to the uranium
22 fuel cycle and solid waste management and
23 decommissioning. In the generic EIS, the NRC
24 considered impact areas associated with these topics
25 as Category One issues. Our team found no new and

1 significant information associated with these topics
2 and therefore adopted the conclusion in the generic
3 EIS that impacts in these areas would be small.

4 Cook Nuclear Plant Units One and Two have
5 a combined capacity of over 2,000 megawatts. The
6 EIS team evaluating the potential environmental
7 impacts associated with the Cook Plant not
8 continuing operation and replacing its generating
9 capacity with alternative power sources. We looked
10 at a no action alternative where the power capacity
11 of the Cook Plant would not be replaced. We looked
12 at replacement of that capacity with new generation
13 from either coal, natural gas or new nuclear. We
14 looked at replacement of that capacity with
15 purchased electrical power and then we looked at
16 other alternatives including oil, wind, solar and
17 conservation. And then we examined the impacts of a
18 combination of those various alternatives.

19 For each alternative, we looked at the
20 same types of issues that we looked at for the
21 operation of the Cook Plant during the license
22 renewal term. The team's preliminary conclusion is
23 that the environmental impacts of alternatives - -
24 of all alternatives reach moderate or large
25 significance in at least some impact categories. So

1 the impacts of all alternatives would have larger
2 environmental impacts than the impacts of
3 relicensing over the 20-year - - for another 20
4 years. Next slide.

5 So our preliminary conclusions for the
6 Category One issues presented in the generic EIS, we
7 found no information that was both new and
8 significant. Therefore, we have preliminarily
9 adopted the conclusion that impacts associated with
10 these issues are small.

11 In the supplement EIS, we analyzed the
12 remaining Category Two issues pertinent to the Cook
13 Plant as well as the issue of groundwater quality
14 degradation associated with on-site disposal of
15 processed waste water and sanitary waste water,
16 those impacts also would be small.

17 And lastly, we found that for all
18 alternatives, at least in some impact categories,
19 and this is usually related to the amount of land
20 disturbance associated with building new capacity,
21 that there would likely be moderate or large impact
22 in some impact area.

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

25 FACILITATOR CAMERON: Okay. Thank you,

1 Kirk. And let's first try to answer Mr.
2 Pielemeier's question which I'm going to paraphrase
3 it, but are there - - have there been any studies
4 about the health effects of the radiation exposures
5 to workers at the facility? We'll go to Andy
6 Kugler.

7 ANDREW KUGLER: Okay. Thank you, Chip.
8 I'm not aware of any specific studies related to
9 cancers in the workers. There have been studies
10 that I'm aware of related to the population around
11 power plants to evaluate whether there's any
12 indication that there were increases of incidents of
13 cancer around power plants. And the conclusions of
14 those studies was that there wasn't any higher rate
15 of cancer. But I'm not aware of specific studies.

16 Now what I am - - what I can tell us is
17 that the Plants monitor the exposure of their
18 personnel, that they're required to have a program
19 in place called ALARA, As Low as Reasonably
20 Achievable, where they are required to take steps to
21 minimize the dose to workers. And that goes beyond
22 just - - I mean, plant designs and approaches were
23 intended to minimize doses, to begin with, but this
24 program requires them to go beyond that and to do
25 everything they can to minimize dose. In general,

1 the exposures to workers are well below our limits,
2 our regulatory limits. But as far as studies, I
3 don't have any specific data. And that's something
4 that when we get back, we can take a look if there
5 is something specific. I'm not a radiation
6 specialist, so I wouldn't necessarily be aware if
7 there was a study. But we can try and gather more
8 information. But the standards to which they're
9 being held, were set by international committees
10 that determine what would be a safe level and you
11 have this - - you know - - you stay below that
12 level. And plants all do that and they maintain the
13 exposure to their staff well below those limits, but
14 I'll see if we can find something out as far as any
15 studies that have been done.

16 FACILITATOR CAMERON: And there is a
17 section in the draft on occupational exposures.

18 ANDREW KUGLER: Correct.

19 FACILITATOR CAMERON: Perhaps we could
20 direct Mr. Pielemeier to that. Do you have any - -
21 do you have a follow-up question on that, Mr.
22 Pielemeier?

23 JOHN PIELEMEIER: No. I would simply feel
24 that since many of these plants have been in
25 operation now for a significant period of time,

1 that, you know, if might be of interest now. When
2 they were started, you know, there was no long-term
3 history to study, so to speak, but there would be
4 now. And I thought that might be of interest.

5 ANDREW KUGLER: And there very well may
6 be. It just might not be something I'd be aware of.
7 Okay.

8 FACILITATOR CAMERON: Okay. Other
9 questions about the findings in the draft
10 Environmental Impact Statement for Dr. LaGory or
11 anybody else? Any questions? Any further issues?
12 If not, we're going to go to the severe accident
13 mitigation alternatives that Dr. LaGory referred to
14 and we have Bob Palla with us who's a Senior Reactor
15 Engineer at the Nuclear Regulatory Commission. And,
16 he spent most of his 23 years at the Commission
17 looking at severe accidents and something called
18 probabilistic risk analysis. And, Bob, I'll turn it
19 over to you.

20 BOB PALLA: Thanks, Chip. My name is Bob
21 Palla. I'm with the Probabilistic Safety Assessment
22 Branch of NRC and I'm going to discuss the
23 environmental impacts of postulated accidents.
24 These impacts are described in Section 5 of the
25 Generic Environmental Impact Statement or the GEIS.

1 The GEIS evaluates two categories of accidents:
2 Design-basis accidents and severe accidents.

3 Now, design-basis accidents are those
4 accidents that both the licensee and the NRC staff
5 evaluate to insure that the plant can safely respond
6 to a broad spectrum of postulated accidents without
7 risk to the public. The environmental impacts of
8 design-basis accidents are evaluated during the
9 initial licensing process and the ability of the
10 plant to withstand these accidents has to be
11 demonstrated before the plant is granted an
12 operating license. Most importantly, a licensee is
13 required to maintain an acceptable design and
14 performance capability throughout the life of the
15 plant, including any extended life operation.

16 Since the licensee has to demonstrate this
17 acceptable plant performance for the design-basis
18 accident throughout the life of the plant, the
19 Commission has determined that the environmental
20 impact of design-basis accidents are of small
21 significance. Neither the NRC nor the licensee is
22 aware of any new and significant information on the
23 capability of the D.C. Cook Plant to withstand
24 design-basis accidents. Therefore, the staff
25 concludes that there are no impacts related to the

1 design-basis accidents beyond those discussed in the
2 GEIS.

3 Now, with regard to severe accidents, the
4 second category, these accidents, by definition are
5 more severe than design-basis accidents because they
6 could result in substantial damage to the reactor
7 core. The Commission found in the GEIS that the
8 risk of a severe accident, in terms of atmospheric
9 releases, fallout onto open bodies of water,
10 releases to groundwater and societal impacts are
11 small for all plants. Nevertheless, the Commission
12 determined that alternatives to mitigate severe
13 accidents must be considered for all plants that
14 have not done so. We refer to these alternatives as
15 severe accident mitigation alternatives or SAMA's
16 for short.

17 Now, the SAMA evaluation is a site-
18 specific assessment and it's a Category Two issue as
19 Kirk described moments ago. The SAMA review for
20 D.C. Cook is summarized in section 5.2 of the GEIS
21 supplement and is described in more detail in
22 Appendix G of the GEIS supplement. And I'm going to
23 be focusing on the results of this review in the
24 remainder of my presentation.

25 Now, before I get started, let me just

1 outline and summarize that the purpose of performing
2 the SAMA evaluation is to insure that plant changes
3 with the potential for improving severe accident
4 safety performance are identified and evaluated.
5 The scope of potential plan improvements that were
6 considered include hardware modifications, procedure
7 changes, training program improvements, as well as
8 other changes. Basically, a full spectrum of
9 potential changes. The scope includes SAMA's that
10 would prevent core damage as well as SAMA's that
11 would improve containment performance given that a
12 core damage event may occur.

13 The SAMA evaluation process is a four-step
14 process. The first step is to characterize overall
15 plant risk and leading contributors to risk. This
16 typically involves extensive use of the plant-
17 specific probabilistic risk assessment study which
18 is also known as the PRA. The PRA is a study that
19 identifies different combinations of system failures
20 and human errors that would be required to occur in
21 order for an accident to progress to either core
22 damage or containment failure. The second step of
23 the evaluation is to identify potential improvements
24 that could further reduce risk. The information
25 from the PRA, such as a dominant accident sequence

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1 is used to help identify plant improvements that
2 would have the greatest impact in reducing risk.
3 Improvements identified in other NRC and industry
4 studies as well as SAMA analyses for other plants,
5 are also considered.

6 The third step in the evaluation is to
7 quantify the risk reduction potential and the
8 implementation costs for each improvement. The risk
9 reduction and the implementation costs for each SAMA
10 are typically estimated using abounding analysis.
11 The risk reduction is generally over estimated by
12 assuming that the plant improvement is completely
13 effective in eliminating the accident sequences it
14 is intended to address.

15 The implementation costs are generally
16 under estimated by neglecting certain cost factors
17 such as maintenance costs and surveillance costs
18 associated with the improvement.

19 The risk reduction and cost estimates are
20 used in the final step to determine whether
21 implementation of any of the improvements can be
22 justified. In determining whether an improvement is
23 justified, the NRC staff looks at three factors.
24 The first is whether the improvement is cost
25 beneficial. In other words, is the estimated

1 benefit greater than the estimated implementation
2 costs of the SAMA. The second factor is whether the
3 improvement provides a significant reduction in
4 total risk. For example, does it eliminate a
5 sequence or a containment failure mode that
6 contributes to a large fraction of the plant risk.

7 The third factor is whether the risk
8 reduction is associated with aging effects during
9 the period of extended operation, in which case, if
10 it was, we would consider implementation of the SAMA
11 as part of the license renewal process.

12 The preliminary results of the D.C. Cook
13 SAMA evaluation are summarized on this slide. 194
14 candidate improvements were identified for D.C. Cook
15 based on the review of the plant-specific PRA,
16 relevant industry and NRC studies on severe
17 accidents, and SAMA analyses performed for other
18 plants. The licensee reduced this set to a set of
19 72 potential SAMA's based on an initial screening.
20 Factors considered during the screening included
21 whether the SAMA is not applicable to D.C. Cook due
22 to design differences, whether it has already been
23 addressed in the existing D.C. Cook design or
24 procedures or training program, and whether the SAMA
25 would involve major plant changes that would clearly

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1 be in excess of the bounding benefit. So if it met
2 any of those three general conditions, the SAMA's
3 were screened out. The end result was that 72 of
4 these were screened from the initial 194, and then
5 upon further assessment, the 72 was further reduced
6 yet. But a more detailed assessment of these were
7 first performed. This is described in detail in
8 Appendix G of the GEIS supplement.

9 The cost/benefit analysis that was done
10 for the 72 shows that 16 of these are potentially
11 cost beneficial when evaluated individually in
12 accordance with NRC guidance for performing
13 regulatory analyses. These 16 potentially cost
14 beneficial SAMA's are grouped into five areas of
15 risk reduction and SAMA's within each of these areas
16 generally address the same risk contributor in a
17 different way. The 16 SAMA's include 7 SAMA's that
18 are related to minimizing the potential for leakage
19 from reactor cooling pump seals. Four SAMA's
20 related to minimizing the impacts of the loss of
21 ventilation systems that would cool emergency diesel
22 generators and switch gear. Two SAMA's related to
23 improving the performance of hydrogen-controlled
24 systems during station black-out accidents. One of
25 the SAMA's involved minimizing the impact of the

1 loss of AC bus failures in the plant. And two
2 SAMA's related to improving operator recovery from
3 interfacing system LOCA accidents.

4 Now implementation of one SAMA within a
5 group could reduce the residual risk from that group
6 to a point that the remaining SAMA's in the group
7 would no longer be cost beneficial. So as a result,
8 implementation of all 16 SAMA's is not expected to
9 be justified on a cost/benefit basis. Rather,
10 implementation of a carefully selected subset of the
11 16 might achieve much of the risk reduction in a
12 cost-effective manner.

13 On this last slide I summarize the
14 conclusions of the study. None of the cost-
15 beneficial SAMA's of these 16 are related to
16 managing the effects of plant aging. And as I
17 discussed previously, if they are not aging
18 related, they need not be implemented as part of
19 license renewal. Now, although they're not required
20 to be implemented as part of the license renewal
21 process, the licensee is further assessing these
22 SAMA's and evaluating implementation options in
23 accordance with the D.C. Cook corrective actions
24 program. So that concludes my presentation. I'll
25 turn it over to Chip for any questions.

1 FACILITATOR CAMERON: Okay. Thank you,
2 Bob. So you heard about the severe accident
3 alternatives. Are there any questions on that
4 aspect of the Environmental Impact Statement? Yes.
5 And this is Mr. Pielemeier. Mr. Pielemeier.

6 JOHN PIELEMEIER: I love to ask questions.
7 A number of years ago, there was a - - I believe a
8 shut-down operation for a situation where the - -
9 the ice jacket around the - - one of the cooling
10 units was not considered adequate in terms of the
11 baskets and so on that contain the ice. Now, you
12 know that's as little as I understand it - - that
13 issue. But I just wondered whether that has
14 remained as an issue in any way or whether it's been
15 fully rectified?

16 BOB PALLA: Well, let me - - let me
17 separate, if I may, the safety side from the
18 environmental side and what we did in the analysis I
19 just described. This - - the performance issue
20 perhaps is the best way to characterize what you're
21 referring to. Some problems with the ice condenser
22 pressure suppression function of the containment.
23 And this is something that I guess is really part of
24 the safety review. I don't know that it's an aging
25 issue. I don't suspect that it is. I think it's

1 just a regular everyday issue from an operations
2 point of view when operating these ice condenser
3 containments. I think as - - when these plants were
4 first started, I think it was a steep learning
5 curve. There are a lot of operational issues that
6 were revealed as the plants - - as they gained more
7 experience with the operation of the plants. My
8 understanding is that these issues over time have
9 been ironed out and that they - - you know - - just
10 by the experience base that's been gained over the
11 years, both Cook as well as other ice condenser
12 plants operating in the country, you know, share
13 their insights regarding operational issues. So I'm
14 speaking, you know, off the cuff here, to say I
15 expect that that's the case. But I - - that's my
16 expectation.

17 Now, with regard - - and that's really a
18 safety issue. Probably not even an aging-related
19 issue. It's an operating plant issue. With regard
20 to what we do in the SAMA evaluation, issues like
21 that would be, if significant and if revealed, you
22 know, over time, let's say it happened on a regular
23 basis. These kind of failures would be part of the
24 probabilistic risk assessment and you would see a
25 risk contribution to that within the baseline study.

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1 Now, we didn't look at any ice condenser issues as
2 part of this SAMA review. We did not see it as a
3 problem. I don't believe it's - - it appears as a
4 significant risk contributor.

5 FACILITATOR CAMERON: So in other words,
6 you didn't look at them because they didn't appear
7 to be any sort of a significant risk contributor.

8 BOB PALLA: That's right. What we try to
9 do here is focus on where we think the residual risk
10 is coming from and then try to find ways that you
11 can reduce that through smart selection of some
12 potential plant improvements. This didn't - - this
13 kind of problem that you're referring to did not
14 reveal itself through the risk assessment, so we
15 did not explore ways to fix a problem that we didn't
16 see as a problem.

17 FACILITATOR CAMERON: Anything else on
18 that, Mr. Pielemeier? All right. Any questions on
19 any of the presentations so far? Anything else that
20 we could answer for you? Okay. well, let's go to
21 the final summing up by Mr. Bill Dam, the
22 Environmental Project Manager is going to do that
23 for us. Bill?

24 WILLIAM DAM: Turning to our conclusions,
25 we found that for license renewal the environmental

1 impacts are small in all areas. When we looked at
2 the alternatives part, including the no action
3 alternative, the environmental effects had some
4 impact categories ranging from small, moderate or
5 large significance.

6 Based on these results, our preliminary
7 conclusion is that by operating the Donald C. Cook
8 Plant, Units One and Two, for an additional 20
9 years, the environmental impacts would be small
10 and therefore, the option to renew the license
11 should be preserved for energy planning decision
12 makers.

13 As I mentioned before, the draft
14 Environmental Impact Statement was released in
15 September. So what happens next? We're into a 75-
16 day comment period that runs until December. After
17 that, we will review and disposition the comments we
18 receive tonight and after this meeting, if we get
19 any, and we'll modify the Environmental Impact
20 Statement and release a final draft by May of next
21 year, 2005.

22 This slide describes the reference
23 documents and I'm available at this phone number and
24 I'd be happy to talk to anybody who wants to call
25 and provide me information about what we're here

1 discussing tonight. Also, the environmental
2 documents are available at two public libraries.
3 One is the Bridgman, and one in St. Joseph. And
4 there's also quite a bit of information on the NRC
5 website about a range of issues. Specifically to
6 this project, the draft Environmental Impact
7 Statement is available on line at the long address,
8 e-mail address you can see there or the website
9 address.

10 So outside of this meeting tonight, there
11 are three additional ways that you can provide us
12 comments on the draft Environmental Impact
13 Statement. One is by writing to us at this address.
14 The second way is in person, if you happen to be in
15 the Rockville, Maryland area. We'd be happy to meet
16 with you and discuss your comments. And the third,
17 we've set up a special e-mail address to receive
18 comments. And that address is CookEIS@nrc.gov.
19 All comments will be collected and considered and
20 responded to in our final Environmental Impact
21 Statement.

22 I want to take time to thank you for
23 attending this meeting for this very important
24 process. And please take brochures and other
25 information in the back. And we have single copies

1 of the draft Environmental Impact Statement
2 available for you to take home. Also, we also
3 request that you provide us your feed-back. It will
4 help us prepare for future meetings. I thank you,
5 again, for attending and being great participants.

6 FACILITATOR CAMERON: Okay. Thanks, Bill.
7 We're going to move into the second part of the
8 meeting now, which is to have an opportunity to
9 listen to any comments that you have. And we always
10 like to give the - - a representative of the license
11 applicant an opportunity to tell us a little bit
12 more about their vision and plans connected to
13 license renewal. And we have the Chief Nuclear
14 Officer and Senior Vice Present for AEP with us
15 tonight, Mr. Mano Nazar who is going to talk to us
16 for a few minutes. And then we're going to go to
17 some other commenters that we have. Mr. Nazar?

18 MANO NAZAR: Thank you. On behalf of
19 American Electric Power, I want to thank you for
20 coming tonight and taking time away from the family
21 and busy schedule. Just want to share briefly
22 about our process. You have heard from members of
23 the NRC as far as their assessment and review of our
24 application. But we want to let you know that this
25 application just didn't go to the NRC without

1 extensive internal review that we use to make sure
2 that our application was meeting all of the
3 requirements and they're not just minimum
4 requirements, but above and beyond.

5 We actually started work on the license
6 renewal from year 2001. As you saw, the application
7 was submitted 2003, which is two years after we
8 started working on the application to make sure that
9 the application was solid with respect to the
10 quality and met all of the expectations and
11 requirements and regulations.

12 One thing that I am going to share with
13 you is that - - with respect to the way we conduct
14 our operation. As you heard, I'm Chief Nuclear
15 Officer. The Site Vice President and Plant Manger,
16 Vice President of Engineering, they report to me. I
17 have been in this industry for 24 years in several
18 different plants. This is the fourth plant and I've
19 been through license renewal for actually, the
20 second nuclear power plant in the industry, which
21 was Oconee Nuclear Site for Duke Energy in
22 Carolinas.

23 We operate this plant based on some core
24 values that are based on prevention. Our operation
25 of the facility is based on getting ahead of the

1 issues and solving the issues before they become
2 crisis or failures. And as a result of that,
3 tremendous work takes place in the form of
4 preventative activities. And we routinely, day in
5 and day out, we're conducting preventative
6 activities to make sure that we are in operational
7 readiness at any given time, at any given time.

8 And then because of that, again, obviously
9 we have roughly 1,400 to 1,500 people working at
10 that site, very solid citizens, solid employees.
11 They are very involved in the community, which is
12 part of our mission. Our mission is to operate our
13 facility as safe as possible, as reliable as
14 possible, low cost which, hopefully, our customers,
15 they benefit from that aspect of it as well. And
16 the friendly environment and our community. That's
17 part of our mission to do all those while we're
18 caring about the community and environment.

19 And our employees, they are very involved
20 in community and are helping the community and we
21 want to be a very good neighbor to this community
22 and we have been. We are involved in all aspects of
23 the community needs and, you're going to probably
24 hear later on, as far as involvement that our
25 employees have to insure that we are fulfilling our

1 obligation to the community as well as operating the
2 facility to the highest level of the standard in the
3 industry.

4 This particular decision was an easy
5 decision for American Electric Power. The cost is
6 tremendous to just put our application together and
7 submit the application and go through extensive
8 reviews as you probably have heard so far. This
9 process, it takes roughly about two years to
10 complete. And it's extensive, a lot of work and we
11 always closely work with the regulators and members
12 of NRC to make sure that any enhancements, any
13 issues - - doesn't matter to what magnitude, minor,
14 medium, but that we get ahead of those and correct
15 them. Correct them in preventative ways. Make sure
16 that we enhance our operational aspect of the
17 facility to the optimum level.

18 This also - - the costs doesn't stop by
19 just submitting application. When you make long-
20 term commitment to operate this facility, it's
21 multimillion dollar decision. We plan for
22 additional 20 years that we're going to operate.
23 Spend lot of money from the financial aspect to make
24 sure this operation is the highest standard. And
25 all of our equipment, you heard about the equipment

1 aging program, you have very extensive, solid,
2 comprehensive program to make sure that we are
3 dealing with the aging for the mechanisms. At any
4 given time, that we are staying ahead of the issue.

5 That results in a lot of repair and
6 replacements of the major equipment and that's where
7 the cost comes in. And I wouldn't be surprised just
8 within next few years, we probably going to spend
9 half a billion dollars to make sure that this
10 facility is top notch in industry and operating it
11 at that highest level that I referred to.

12 So that's our commitment, that's the
13 commitment of the entire Cook organization and
14 employees, and I'm representing them. And I promise
15 the community that we are here for the long-haul. We
16 don't have short term visions. As a result, our
17 activities are based on that concept. Based on
18 those core values. So again, I appreciate your
19 being here. Thanks for some of the comments that
20 you heard from members of the NRC. And our work
21 never stops. It's a journey with no rest area. We
22 continue working toward excellence. Thank you very
23 much.

24 FACILITATOR CAMERON: Okay. Thank you,
25 Mr. Nazar. Mr. Nazar and his staff are here tonight

1 and will be available for questions or discussion
2 after the meeting. We have three additional
3 speakers. First of all we're going to go to Mr. Pat
4 Moody, with the Cornerstone Chamber of Commerce.
5 Then to Nanette Keiser, President of the Berrien
6 Community Foundation and then to Mr. John
7 Pielemeier. And I would ask Mr. Moody to come up.
8 Do you want to come up here or you can use this if
9 you want, but you can go to the podium. Okay.

10 PAT MOODY: Thank you very much. My name
11 is Pat Moody. I am Vice President of Investor and
12 Community Relations for Cornerstone Alliance, and
13 Executive Vice President of the Cornerstone Chamber
14 of Commerce. I represent more than 750 members and
15 investors of the largest economic development agency
16 in Michigan's great southwest and the lead Chamber
17 of Commerce in the entire area.

18 Our daily charge is to retain existing
19 businesses in our region and to attract new
20 businesses to enhance the quality of life in the
21 area. Naturally, we would be very interested in
22 retaining one of our largest employers. Our
23 organization absolutely, unequivocally and quite
24 cheerfully endorse and support the relicensing of
25 the Donald C. Cook Nuclear Power Plant because the

1 Cook is an outstanding community partner. We
2 annually track the top 100 employers in our region,
3 and this Plant is number on that list. There are
4 only two employers in the area with larger payrolls:
5 Whirlpool Corporation and the Lakeland Regional
6 Health System.

7 Additionally, the Plant is the largest
8 single tax payer in this county, contributing the
9 highest share of dollars toward our public school
10 systems, our police and fire departments, our
11 streets and sewers, our parks and playgrounds.
12 Clearly, they are a vital cog in the machine of
13 commerce and public infrastructure and they have a
14 significant impact here. They provide and attract a
15 highly skilled labor and often times, as a result,
16 provide an outstanding labor pool in the form of
17 spouses, family members and significant others who
18 travel with them. The men and women of the Cook
19 Nuclear Power Team are very well known for sharing
20 their time, talent and treasure to support
21 nonprofit, charitable and health and human service
22 organizations throughout the area.

23 Frankly, I can't imagine life without this
24 good neighbor and all that it brings to the table on
25 a daily basis. We showcase the Plant when we work

1 to attract new businesses to the area, pointing with
2 pride to the capacity and the output and the
3 positive impact that they have on utility costs for
4 manufacturers and others.

5 The bottom line is that this Plant is good
6 for business. It is good for economic development
7 and it is good for the people who call this place
8 home. And we appreciate the opportunity to share
9 our desire to see license renewal proceed to
10 successful conclusion and approval.

11 FACILITATOR CAMERON: Great. Thank you,
12 Mr. Moody. And we're going to go to Ms. Nanette
13 Keiser at this point.

14 NANETTE KEISER: Hello. I'm Nanette
15 Keiser, President and Executive Director of the
16 Berrien Community Foundation. We support the
17 renewing the licenses for the Cook Nuclear Plan,
18 Units One and Two, in part because AEP-Cook is a
19 great corporate citizen doing much for our
20 community. We at the Foundation have the privilege
21 of working with two Heart of Cook programs,
22 sheperded by Jennifer Kernosky and Bill Shalk. In
23 both cases, these Heart of Cook programs help many
24 in our communities by providing scholarships and
25 grants at significant levels.

1 Also AEP-Cook employees are very active in
2 our community as volunteers. For example, Bob Story
3 chairs the Harbor Habitat Board and also is very
4 active in the 2005 Jimmy Carter Work Project. We
5 can count many Cook employees as members among the
6 local service clubs. We are fortunate to have such
7 a giving organization in our community. This has
8 resulted in a great positive impact on our
9 socioeconomic environment. We need to keep them
10 here for at least another 20 years. Thank you.

11 FACILITATOR CAMERON: Okay. Thank you
12 very much. Next we're going to go to Mr. John
13 Pielemeier. John?

14 JOHN PIELEMEIER: I don't represent anyone
15 other than myself, so to speak. No organization or
16 anything. And some of my comments are probably of
17 more of a generic nature than Cook specific. But
18 it's a chance for me to get some of them off my
19 chest.

20 I've broken this down briefly into three
21 areas: Local impact of the Cook Plant extension.
22 Then the National aspects of nuclear power
23 generation and from there, the world wide aspects.

24 First of all, from the local impact, I've
25 seen no adverse impact on local land, air and water

1 quality caused by the Cook Plant. However, long-
2 term local storage of spent fuel is undesirable. It
3 should be moved to the Yucca Mountain ASAP. Cook
4 has been a good community neighbor. Conversely,
5 nonextension of the Cook license would increase
6 local electric rates, negatively impacting
7 residential, business and industrial customers. The
8 local economy would be depressed. The tax base
9 would be devastated.

10 From a national standpoint, extending
11 current nuclear plant licenses and building
12 additional nuclear plants has immense potential
13 benefit by reducing use of natural gas for electric
14 generation, cost and supply of gas would be
15 improved. Gas would be more available for more
16 appropriate uses, such as domestic and industrial
17 heating and production of plastics. Reduced cost of
18 electricity would be a boon to the entire economy,
19 and improve our trade competitiveness. Possible
20 reduced use of coal could reduce our air pollution
21 as well as reduce mercury in the water and our food.
22 Our dependence on Mideast oil and gas could be
23 reduced. New nuclear plant construction would
24 create jobs.

25 From the standpoint of world wide impact,

1 shifting power generation to nuclear by extending
2 plant life and building new plants, would reduce
3 greenhouse gas generation and, hopefully, mitigate
4 global warming, which is probably at least partly
5 responsible for present rapid melting of the global
6 ice caps and glaciers.

7 Our emphasis on the fear factor has
8 retarded nuclear generation in this country to all
9 our detriment. We have had no genuine nuclear
10 disasters in this country. Latest nuclear power
11 generation technology virtually eliminates the
12 possibility of disastrous accidents. The
13 exaggeration of Three Mile Island is partly to
14 blame for attitude. It was no Chernobyl. It's time
15 we got by that. France, which has become so popular
16 to knock in this country, generates about 80 percent
17 of its electricity by nuclear. It has significantly
18 lower electric rates and has no significant
19 accidents. It is time this country reap the huge
20 potential benefits from nuclear electric generation.
21 Thank you.

22 FACILITATOR CAMERON: Okay. Thank you
23 very much, Mr. Pielemeier. And we do have a copy of
24 Mr. Pielemeier's comments that we're going to attach
25 to the transcript, so if you're interested in

1 looking at them, they will be with the transcript
2 and hopefully, Bill, can we make the transcript
3 available at the libraries, just as we did the other
4 materials?

5 BILL DAM: Yes.

6 FACILITATOR CAMERON: Okay. Great. That's
7 terrific. Is there anybody else who - -who wants to
8 talk to us tonight? Any final questions about
9 SAMA's or anything else? Okay. Well, I would thank
10 you for your comments and courtesy tonight. And I'm
11 going to turn it over to Andy Kugler for some final
12 words. Andy?

13 ANDREW KUGLER: Well, I just want to close
14 by thanking you all for coming this evening again.
15 If you do have comments on the draft report that you
16 haven't given us here this evening, of if you think
17 of something else later, the comment period runs
18 through December 8th. And as he mentioned, Mr. Bill
19 Dam, he's our principal contact. And you have
20 contact information for him. If you can, before you
21 leave, we - - in the package of information you
22 received, you got a meeting feedback form. We'd
23 appreciate if you could fill that out. We're always
24 looking for ways to do these meetings better to
25 provide you with better information. If you see

1 something we could do better, if you could record it
2 on that form, we'd appreciate it. You can either
3 leave that form in the back or if you - - if you
4 want to fill it out later, it's prepostage paid and
5 you can just mail it back to us.

6 Finally, I want to mention that the NRC
7 staff and our contractor will remain after the
8 meeting. We can answer any questions, of if you
9 just want to talk about some aspect of this, we'd be
10 happy to do so. Other than that, again, I want to
11 thank you.

12 (At 8:20 p.m., public meeting concluded)

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