ORIGINAL

OFFICIAL TRANSCRIPT OF PROCEEDINGS

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

Title: PUBLIC MEETING - ENVIRONMENTAL REVIEW FOR THE ARKANSAS NUCLEAR ONE, UNIT 1 LICENSE RENEWAL APPLICATION

Case No.: 50-313

Work Order No.: NRC-1211

LOCATION: Russellville, Arkansas

DATE: Tuesday, April 4, 2000

PAGES: 1 - 44

ANN RILEY & ASSOCIATES, LTD.
1025 Connecticut Avenue, NW, Suite 1014
Washington, D.C. 20036
(202) 842-0034

ATTACHMENT 1

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

***

PUBLIC MEETING - ENVIRONMENTAL REVIEW

FOR THE ARKANSAS NUCLEAR ONE, UNIT 1

LICENSE RENEWAL APPLICATION

Holiday Inn Russellville

Route 7 and I-40

Russellville, Arkansas

Tuesday, April 4, 2000

The above-entitled meeting commenced, pursuant to notice, at 1:30 p.m.

PANEL MEMBERS:

FRANCIS X. CAMERON, Facilitator

THOMAS KENYON

BOB PRATO

CYNTHIA CARPENTER

ANN RILEY & ASSOCIATES, LTD.
Court Reporters
1025 Connecticut Avenue, NW, Suite 1014
Washington, D.C. 20036
(202) 842-0034

P R O C E E D I N G S

MR. CAMERON: Good afternoon and welcome to the Nuclear Regulatory Commission's public meeting on the development of the environmental impact statement for the license renewal application for Arkansas Nuclear One.

My name is Chip Cameron and I'm the special counsel for public liaison at the Nuclear Regulatory Commission, and it's my pleasure to serve as your facilitator and moderator for this afternoon's meeting. And I want to briefly address three subjects. One, the objectives of today's meeting; two, some simple ground rules for the meeting this afternoon; and third, to just give you a brief overview of the agenda that we're going to be following this afternoon.

In terms of the objectives of the meeting, we want to explain to you the NRC's license renewal process, specifically the environmental impact statement process, and I think you'll probably hear the term EIS used several times today. Well, that's the acronym for the environmental impact statement. And we want to listen to your comments and suggestions on the issues that the NRC should address and evaluate in the environmental impact statement.

Now, this meeting, as you can see from our slide, is called a scoping meeting. This is a term that is used in connection with the preparation of an environmental impact

statement. The environmental impact statement guides the NRC in making a decision on the license renewal application for Arkansas Nuclear One. Scoping helps the NRC to identify information on the types of environmental impacts that may result from granting the license renewal application, and NRC staff is going to go into further detail on that in a few minutes.

We're also taking written comments on these scoping issues, and we'll give you more information on that in a few minutes. But we wanted to be here personally with you today to discuss any concerns or suggestions that you might have and to give you the opportunity to hear what others in the community might have to say about these particular issues.

The ground rules for the meeting today are pretty simple and they're all aimed at helping us all to have an effective meeting today. We're going to have some brief presentations from the NRC staff to give you some background information, but we want to spend most of the time in discussion with you on these particular issues.

When we get to the discussion period, if you want to speak, I'm going to bring this talking stick out to you so that you can talk into it. Because we have good acoustics and a small room, we don't really need it so that everybody can hear, but we are taking a transcript of the

meeting today so that the NRC can have a record of all the comments that were made so that we can evaluate this carefully. But we need to speak into the mike so we can capture you on the transcript, and when I come out and give you the talking stick, if you could just state your name for the record and an affiliation if that's appropriate, and just give us your comment.

It's of course important that only one person speaks at a time, not only so that we can have a clean transcript but more importantly so that we can all listen to what each other has to say this afternoon.

I would ask you to try to be concise. We haven't set a time limit on comments or presentations, but we do want to make sure that everybody who wants to speak this afternoon gets an opportunity to talk, so there may be cases where I'll have to ask you to summarize and move on. And I think that we probably have plenty of time for the audience that we have today, so I don't think that the time is going to be a problem.

In terms of our agenda for this afternoon, we're going to start off with Cynthia Carpenter, who's the branch chief of the Generic Issues, Environmental, Financial, and Rulemaking Branch at the Nuclear Regulatory Commission, and Cindi's branch is responsible for putting the environmental impact statement together for the license renewal

application. She's going to talk about the purpose of the meeting and give you an overview, and then we're going to go to Bob Prato from the NRC staff who's going to talk about license renewal in general.

This meeting today is on the environmental aspects of license renewal as opposed to some of the safety issues that are typically considered in a license renewal application, and it's important that you have that overall context, though, before we get into the specific environmental issues, and Bob is going to be addressing those issues. After he's done, we'll go out to you for any questions or any comments that you might have on his presentation.

Then we're going to go to Tom Kenyon of the NRC who is in Cindi's branch, and Tom is going to talk specifically about the environmental issues that are going to be considered; the environmental impact statement process for the license renewal application. Then we'll go out to you again for questions and comments, and that will lead us into an open discussion. There may be people out there who would like to make a statement for all of you and the NRC to hear.

Specifically, we have some representatives from the licensee for Arkansas Nuclear One that we'll be introducing during that time period, and they're going to

make a few statements. We also have Angie Howard from the Nuclear Energy Institute, who may want to make a statement, and we may have others from other points of view who want to do that, and we'll have plenty of time to do that before we end today.

I guess a final point before I introduce Cindi is that we are here to focus on environmental issues and what suggestions you might have for the NRC and what they consider in looking at the environmental issues. There may be other issues of concern to people and we'll try to give you information on those if we can. It may be that they will be handled through the safety review that Bob Prato's side of the house will be doing, or it may be something that would just be folded into the NRC's normal oversight process for the plant.

We thank you for coming out today, and we look forward to your comments, and I'm going to leave it to Cindi and to Tom to introduce some of our very able contracting staff that are helping us with the environmental impact statement.

Cindi?

MS. CARPENTER: Thank you very much. Good afternoon and thank you all for coming today. We really appreciate your coming.

My name is Cindi Carpenter and I am the branch

chief for the Generic Issues, Environmental, Financial, and Rulemaking Branch, and the environmental review is one of the aspects of things that we do in our branch.

We're here today to talk about the environmental review that the NRC is undertaking as a result of Entergy's application for renewal of the operating license for Unit 1 of Arkansas Nuclear One. We'll talk a little bit about the statutory requirements for this action, the purpose of the review, the process that we go through, and a schedule that we're working to.

More importantly, we will provide you the opportunity to give us input on the scope of our environmental review or to ask any questions on anything you've heard today.

To provide you with some background, the operating license for the Arkansas Nuclear One Unit 1 will currently expire in the year 2014. As we'll discuss later, the Atomic Energy Act allows a licensee such as Entergy to renew its license for up to 20 years. Part of the license renewal process requires the Nuclear Regulatory Commission to systematically consider environmental impacts during its decision-making process on this matter.

Arkansas Nuclear One submitted its license renewal application in January of 2000, and we accepted it for review on March 3. We issued our notice of intent to

develop an environmental impact statement on March 10. On the same day we began a 60-day comment period in which time we'll receive comments from members of the public on the scope of our environmental review. These comments will help the staff determine whether it should focus its review in any particular technical area while determining the acceptability in the environmental aspects of the ANO license renewal, and that brings us to why we're here today.

The purpose of the meeting today is to describe the environmental review process to you, to identify environmental areas that the staff typically evaluates to provide the review schedule, accept any comments that you may have, and to explain how to submit comments before the end of the comment period.

Before we get into the details of the NRC's environmental review, I want to turn it over to Mr. Bob Prato. As was mentioned, he is the project manager for the safety review, and he is in the License Renewal and Standardization Branch -- to provide an overview of the license renewal process. Thank you.

MR. PRATO: Good afternoon. Before I get into my presentation I want you to know that my boss was supposed to be here to give the presentation but unfortunately, yesterday he had a death in the family, so he couldn't make it. So what I'm going to try to do is to give his

presentation today and then ask any questions.

Again, I'm Bob Prato. I am the project manager for the technical safety review, versus the environmental safety review.

The NRC mission is to regulate the nation's civilian use of nuclear material to ensure adequate protection of public health and safety, to promote the common defense and security of nuclear facilities, and to protect the environment. This mission and the NRC's authority is derived from the Atomic Energy Act of 1954, the Energy Reorganization Act of 1974, as well as the amendments to those acts and other legislation involving security, waste, and energy policies.

The NRC regulations are issued under Title 10 of the United States Code of Federal Regulations, which is more commonly known as 10 CFR. For commercial power reactors, the NRC regulatory function includes licensing of these facilities. A nuclear plant license is based on a set of established regulatory requirements that ensures the design and proposed operations are performed based on radiological safety standards.

The NRC conducted routine inspections to ensure that plant design and operation conform to the license requirements, and enforcement actions are taken in the event that the license requirements are not being satisfied.

The Atomic Energy Act and NRC regulations limit commercial power reactor operation licenses to 40 years, but it also permits the renewal of those operating licenses for additional 20-year periods.

The 40-year term was originally selected on the basis of economic and anti-trust consideration, not on technical limitations. However, once the 40 years were selected, the design of several systems and structures were engineered on the basis of an expected 40-year service life. The operating requirements for the initial 40-year license are contained under 10 CFR Part 50.

When the first reactors were constructed, major components were expected to last the entire 40-year period. Operating experience has demonstrated that these expectations were not realistic for some of the major components such as the steam generators and pressurized water reactors.

However, continued research conducted over the past decade and operating experience has demonstrated that there are no technical limitations to plant life because these major components can be refurbished or replaced. Thus, the plant life is determined primarily on economic factors.

As a result, the NRC established regulatory requirements in 10 CFR Part 54 to provide for license

renewal. The rule, which was initially issued in 1991 and amended again in 1995 has three basic technical requirements.

First, that each licensee's current licensing basis carries forth into the renewed period; second, that an applicant demonstrates the applicable aging effects will be adequately managed for the defined scope of long-lived passive structures and components for the period of extended operation. And the reason it's limited to the long-lived passive structures and components is because the commission has established that short-lived active structures and components are adequately managed under the current licensing basis, which automatically carries forth into the period of extended operation.

Third, the rule also required that certain time-dependent design analysis be identified and reevaluated. A new license can be granted upon a finding by the commission that actions have been or will be taken by the licensee so that there is reasonable assurance that the applicable aging effects will be adequately managed throughout the period of extended operation, and of course that the environmental requirements are also met.

The United States currently receives about 20 percent of its electricity from the 103 operating nuclear power facilities. The electricity sector is currently

moving rapidly to a deregulated environment in which energy supply choices will be based directly on costs to the consumer.

At the same time, there are growing pressures to limit fossil fuel emissions because of continued concerns for clean air and potential global climate changes. Deregulation and competition have raised the interest in license renewal to strategic importance because large generating plants become vital economic assets to the US economy.

Operating nuclear power plants are expected to remain competitive after retail electricity restructuring, provided that the costs associated with operating these plants safely in the future can be reasonably projected. Some currently operating US plants will not apply for license renewal for economic reasons, but the NRC wants to establish the license renewal requirements so that any plant that is financially and materially capable of operating safely beyond the current term of its license will have that opportunity, and clearly understand the requirements for such extended operation as is described in the generic environmental impact statement for license renewal.

Calvert Cliffs which is located 50 miles south of Washington, DC, was the first plant to applied for renewed license and recently received the first renewed license in

the United States. Oconee was the second, and their decision is expected any time in the next couple of weeks.

Arkansas Nuclear One submitted their application on January 31, and the staff received it on February 1, and although ANO's license does not expire until 2014, Entergy and many of the other utilities are interested in license renewal today to ensure that they clearly understand what requirements will be necessary for an extended license for future financial considerations.

The licensing process consists of a parallel technical and environmental review, which will be documented in a safety evaluation report for the aging management aspects and a supplement to the generic environmental impact statement for the environmental impact review. The aging management findings and the NRC staff's safety evaluation will be verified through NRC inspections. The renewal application and safety evaluation will also be reviewed by the NRC's Advisory Committee on Reactor Safeguards in accordance with the usual practices for issuing license by the NRC.

The NRC plans to complete the safety evaluation report for ANO-1 renewal application, which will address the scope of long-lived passive system structures and components, the applicable aging effects, and the aging management programs that Entergy will rely upon to ensure

that that plant is safety maintained for the period of extended operation.

The initial report will identify open items and confirmatory matters related to the safety review under Part 54 that must be resolved before the commission can complete its decision on a renewed license. That report will be available to the public.

The NRC licensing process includes a formal process for public involvement through hearings conducted by a panel of administrative law judges who are commonly called the Atomic Safety and Licensing Board. That process consists of a petition to hold a hearing on particular issues to be litigated by the board.

Regardless of whether there is any formal hearing on ANO-1's renewal application, interested members of the public who are concerned about nuclear safety issues can raise those issues informally through various public meetings that the NRC will hold with Entergy to discuss the various aspects of the proposed extended license. Time is provided at the conclusion of each of these meetings for public comment and question.

Although meetings on many of the technical issues are usually held in Rockville, Maryland, some technical meetings and meetings that summarize the result of NRC inspections will be held near the plant in places that will

be accessible to the public.

The safety evaluation report, meeting summaries, and other related correspondence are available in the local public document room. In addition, we are adding more and more of our information to the NRC website at www.nrc.gov under the reactor license renewal icon.

The Advisory Committee on Reactor Safeguards, or more commonly known as ACRS, performs an independent review of the renewal application and the safety evaluation, and they report their findings independently and make independent recommendations directly to the commission. They also hold public meetings which are transcribed. Oral and written statements can be provided during the ACRS meeting in accordance with the instructions described in the notice of their meeting in the Federal Register notice.

At the end of the process, the final safety evaluation report, the final supplemental environmental impact statement, the results of the inspections, the staff recommendations, and the ACRS recommendations are all submitted to the commission. Those documents and the formal commission meetings to discuss the staff's recommendation are also accessible to the public.

After a public commission meeting, each commissioner will vote on the proposed actions, and a decision is formally sent to the NRC staff for whatever

actions they conclude are appropriate for the ANO renewal application.

Independent of the license renewal application review activities, the NRC continues to conduct its regular inspections and oversight activities associated with the current licensing basis. The NRC inspection and plant performance review are evolving with the NRC's initiative to improve the regulatory oversight process.

If you are interested in learning more about the new inspection and oversight processes, there is information available on the NRC web again, and in NUREG -1649, Revision 1, which is available in the public document room. The normal regulatory process and the amendments to the existing license will be continued in parallel with the renewed application review and address matters of interest such as operating events, spent fuel storage, security, and emergency planning.

That's the end of my presentation. Are there any questions?

MR. CAMERON: Thanks a lot, Bob. Let's see if anybody has any questions on the license renewal process.

Anybody out there with a question?

[No response.]

MR. CAMERON: Okay. And, Bob, as you mentioned, at these meetings that might be held on safety issues,

information is available to the public on how --

MR. PRATO: All meetings will be announced in the Federal Register, plus a lot of the meetings, I understand, get published in the local newspaper, and they're always open to the public and we always give the public time at the end of those meetings to speak up.

MR. CAMERON: Okay. Thank you. And let's have Tom Kenyon next to talk about the environmental impact statement process.

Tom?

MR. KENYON: Hello. My name is Tom Kenyon, and as mentioned before, I work for Cindi Carpenter. I intend to spend the next half an hour talking about the process required by the National Environmental Policy Act, the so-called NEPA process, and then describe how that process has been incorporated into our regulations and then more specifically to talk about how it is being applied to ANO Unit 1 license renewal review.

NEPA was enacted in 1969 and requires all federal agencies to use a systematic approach to consider environmental impacts for certain decision-making proceedings. It is a disclosure tool that involves the public, which is why we're here today. It involves a process whereby information is gathered to enable federal agencies to make informed decisions, and then as part of

that process we will document that information and invite public participation to help us evaluate it.

NEPA process results in a number of different kinds of documents, but chief among those are the environmental impact statement, what we call an EIS. Now, these describe the results of the rigorous and detailed reviews that we do to evaluate environmental impacts of a proposed action that many significantly affect the quality of the human environment.

Now, the NRC has already determined that license renewal is such a federal -- a major federal action, and so we're going through the NEPA process right now on ANO Unit 1 and we're in the process of preparing an environmental impact statement that will talk about the environmental impacts of operation for an additional 20 years.

Now, this slide describes the objectives of the staff's review, and I find it's easiest if I just read it. "The staff is trying to determine whether the adverse environmental impacts of license renewal for ANO Unit 1 are not so great that preserving the option of license renewal for energy planning decision makers would be unreasonable."

Now, that's what the regulations say, but to paraphrase, what we're trying to do is determine whether or not operation of ANO Unit 1 for an additional 20 years is acceptable from an environmental perspective.

Now, to give you a little history, I'd like to spend a few moments describing how the staff incorporated the NEPA process into the regulatory framework at the NRC, and then how we perform our environmental review.

The NRC's implementing regulations for carrying out the NEPA process are located in Part 51 of Title 10 of the Code of Federal Regulations, what we call 10 CFR Part 51. Now, that regulation outlines the contents of the environmental impact statement and the process that the NRC uses in order to meet the requirements of NEPA.

Now, early on in establishing the license renewal process back in the '80s and '90s, the staff recognized that the original environmental impact statements that were written for plants when they first received their licenses 20 or more years ago would need to be updated to address these additional 20 years of operation. So the NRC undertook a rulemaking effort to modify Part 51 and to amend it to address the environmental impacts of license renewal.

As part of the rulemaking effort on Part 51, the staff developed a generic environmental impact statement, what we call a GEIS, and that GEIS looked at the thousands of hours of operating experience at all of the nuclear power plants in the United States to help us identify potential environmental impacts. In addition, the staff has developed an environmental standard review plan for license renewal

that gives us guidance on how to perform out reviews.

Now, there are copies of 10 CFR Part 51, the GEIS, and the Environmental Standard Review Plan outside in the -- on the table in our lobby for you to take a look at. These documents can be viewed on the Internet at our website, and can be obtained from the Government Printing Office. And in addition, the Pendergraft Library at Arkansas Tech has agreed to hold some of these documents for public examination.

Now, this next slide just shows us a little more detail of the environmental review process that was shown on the earlier chart. It graphically shows the process that I'm going to be talking about for the next few minutes, so you might want to refer back to it from time to time. Now, as far as the NEPA process goes, there are certain steps that we at the NRC are required to follow, and these steps are consistent for all environmental impact statements that are prepared by all federal agencies for any major federal action.

Our first step is the notice of intent in which the staff notifies the public of the NRC's plans to develop an environmental impact statement. For ANO-1 the notice of intent was issued last month in the Federal Register.

To prepare for the review, the staff has assembled a team of NRC staff with backgrounds in the specific

technical and scientific disciplines required to perform these environmental reviews. In addition, to supplement the technical expertise of the staff, the NRC engaged the assistance of Pacific Northwest National Laboratory to ensure that we had a well-rounded knowledge base to perform these reviews.

We put together a team of about 20 people, many of whom are in the audience today, to hear what you have to say and to answer any questions that you might have.

The next step is the scoping process, which is where we are today. During this period we will be identifying issues to be addressed in the environmental impact statement. The scoping period for ANO-1 began with the notice of intent back in March 10, and will end on May 9. Today we are holding two public meetings to describe what it is we're doing and to try to get input from members of the public.

During this time, we are seeking information to define the scope of the environmental impact statement and to determine what needs to be studied in detail and what does not need to be studied in such detail. Not only are we soliciting input from you, but we will be talking to federal, state, and local authorities as well as getting information from Entergy.

Once we feel we have enough information to

establish the scope of the review, the staff looks at a number of issues, including, obviously, the environmental impacts. We look at alternatives to license renewal and what those environmental impacts are associated with implementing those alternatives, and then we look at potential mitigation measures which are things that can be done that would decrease the environmental impact of the license renewal.

Now, after we finish our environmental review, we will issue a draft environmental impact statement for public comment. This will be a supplement to the GEIS, as we rely on the findings in the GEIS for part of our conclusions. The report is a draft not because it is incomplete, but because we are at an intermediate stage in our decision-making process. And so we're planning on having another public comment period eight to nine months from now to allow you to take a look at the results of our review and to provide any additional comments you might have after taking a look at the results.

We will also hold two public meetings during that second comment period to describe the results of the review to answer any questions you might have, and again, to get any additional comments you might have.

After we gather the comments and evaluate them, we may decide to change portions of the environmental impact statement to address these comments, and once we've finished

putting together the document, we will issue the final environmental impact statement.

Now that I've given you a general idea of the overall process, let's talk about what we're going to be doing in the near term. We're going to be taking a look at Entergy's application. We will visit the site, and we're going to review Entergy's process. We're taking a look at new and significant information and we're going to evaluate all the input that we receive during the public scoping period.

I want to point out that all comments that are received during the scoping period will be reviewed, considered, and evaluated.

As we've mentioned before, we will be obtaining information from local, state, and federal officials.

By now I imagine you're wondering what it is we really do look at. The GEIS was published as NUREG-1437 and was issued in 1996. It formed the basis for the rule revisions in Part 51. And at that time, the NRC worked with the states, the Council on Environmental Quality, the Environmental Protection Agency, and a number of other groups, and we held a series of public workshops to develop the final guides.

Suffice it to say that during that time the NRC did its best to identify what potential issues could result

from license renewal. The staff identified and categorized the environmental impacts that were specific to license renewal and came up with 92 potential issues. When the staff evaluated the 92 issues, it found that some of these were generic in nature, and that is they were common to all plants, regardless of their design or where they were sited.

The NRC wanted to categorize them differently from those that needed to be evaluated on a plant-specific basis, and so we chose to designate these generic issues as being in Category 1, and the plant-specific issues that we look at are in Category 2.

An example of a Category 1 issue is off-site radiological consequences. When developing the GEIS, the staff looked to see if off-site doses during the renewal period would be likely to exceed the current levels associated with normal operation today. We performed a historical review and determined that doses to the public have been maintained well below those allowed by the regulations.

The staff has not been able to identify any reason for these doses to increase due to the extended operation provided that the monitoring and control programs continue to be implemented acceptably. Because expected radiological impacts apply to all plants in a similar manner, and the significance level of the off-site radiological impact is

considered small at all plants, the staff concluded that this item can be addressed as a generic basis as a Category 1 item.

That does not mean that we're not going to look at this issue any more. What it means is that we're going to be looking only to see if there is any new and significant information that would lead us to change the conclusions that we reached on this issue four years ago.

There were 68 Category 1 issues that we identified and assessed in the final GEIS. As part of our review, we require applicants to inform the NRC in its application of whether or not it is aware of any new and significant information on these issues.

During the scoping phase of the review, we will be looking at input from comments during the scoping period, as well as the federal, state, and local authorities to determine whether or not there is any significant new information on these issues, and if some new and significant information is revealed by this process, then that information will be included in our review to determine the environmental impact. And if not, we're going to adopt the generic inclusions in the GEIS.

All the remaining 24 issues will be looked at on a plant-specific basis.

And finally, the review process is designed to

help the NRC determine whether or not there are any significant new issues that we did not identify four years ago and therefore we did not cover in the GEIS. Any new issue specific to ANO Unit 1 may be revealed as a result of the scoping process that we're in now, and if a significant new issue is identified that was not considered in the GEIS, then we will treat it as a Category 2 issue and review it on a plant-specific basis.

The next two slides give you an idea of the areas we review. The first slide shows you some of the ecological issues that we look at, including aquatic ecology and land use, and we look at threatened and endangered species.

The second slide shows you some of the other areas that we review, including human health, social economics, and as I said earlier, alternatives to license renewal.

Now, the regulations identify some issues that the staff does not look at, including the need for power, the cost of power, and spent fuel disposal, except for transportation in this immediate area. In addition, as mentioned earlier, my environmental review team will not be looking at the safety aspects of the review. That will be covered through the review that Bob here is managing.

After the comment period ends in May, the staff will assess all the comments to determine whether or not they are applicable to the environmental aspects of license

renewal. Issues that do not have a bearing on the decision to renew the license will be referred to the appropriate NRC program manager, such as the operating plan project manager or an allegations coordinator. Such an issue may also be referred to other federal agencies if it's appropriate.

This slide gives you the current schedule for the environmental review for ANO Unit 1. We hope to be finished with the review by July 2001. Now, if there are no hearings and if the review goes smoothly, we hope to improve on that schedule, and to ensure that you are informed of any schedule changes, I recommend that you provide your name and address to the people in the back so that we can include you on our distribution lists. That way we will send you notices of the upcoming public meetings and environmental review and we'll send you copies of the draft and the final environmental impact statement, so we can get your input.

This last slide leaves you with my phone number in case you have any additional questions after you leave today. I am the designated point of contact within the NRC for the environmental portion of the review for ANO Unit 1. All of the documents that we spoke about today can be found on the NRC's home page on the Web, and as I've mentioned earlier, the Pendergraft Library at Arkansas Tech has agreed to make a copy of the application, the GEIS, and the Code of Federal Regulations available to the public.

There's an information sheet on the table outside with more information on how to get this information. Comments can be submitted by mail, in person, or by e-mail, and that information sheet also gives you detailed information on how to submit public comments.

In closing, I want to thank you for your attention. That ends our formal presentations. But before we continue I want to thank you for attending today's meeting, because public participation is an important part of the overall license renewal process. It's important that you participate because it makes for a better process. After all, you know this area and you know this plant a lot better than we do.

And now I'd like to offer you the opportunity to ask any questions you have or provide us with any comments you might want to share.

Chip?

MR. CAMERON: Thanks a lot, Tom.

Are there questions for Tom about the environmental review process or as Tom very succinctly noted at the end of his presentation about you people from the local community having knowledge about the plant that the NRC -- and the environment that the NRC might not have, are there any suggestions on issues that the NRC should explore in doing the environmental impact statement?

[No response.]

MR. CAMERON: Okay. Well, let's move on with the rest of the program, and what I'd like to do now is to give the officials from Entergy an opportunity to talk with you, and I'm going to ask Craig Anderson from Entergy to come up now and introduce the other people who you'd like to talk.

Craig?

MR. ANDERSON: Thank you. Good afternoon. And I'd like also to thank everyone for their attendance today.

My name is Craig Anderson and I'm the vice-president of ANO. ANO is operated by Entergy Operations, Incorporated. I'm also a resident of the river valley, and I have been for almost 19 years now, so I have a very special appreciation for not only the area but the people that live in this area.

We'll be using our time today to provide an overview of the environmental report for the license renewal of ANO's Unit 1. This report is an important part of the license renewal process.

Assisting me today will be Garry Young. Gary -- in the back back there. Garry is a senior lead engineer at ANO and was also -- and is also the project lead for the Unit 1 license renewal. Garry holds a master degree in mechanical engineering from the University of Arkansas at Fayetteville.

We will cover some general information on ANO, the license renewal, our application, and then Garry will cover the summary of the environmental report.

Arkansas Nuclear One is a two-unit nuclear station just west -- in Western Pope County, about five miles west of Russellville near the city of London. The two units have a combined generation capacity of approximately 1,700 megawatts, and they're roughly the same unit with some minor exceptions. They're dissimilar in that both reactor systems and turbine generator systems for the two units are designed by different vendors.

Unit 1 and Unit 2 have separate operating licenses. I might add renewal of the Unit 2 operating license is also planned once we are through the renewal process for Unit 1.

Over the years, ANO has demonstrated high levels of safety and reliability, and serves as an economical source of electricity for Entergy customers. Even if you add the cost of construction, future cost of operation and maintenance, and the license renewal process, Unit 1 is projected to be a sound, cost-effective supply of electricity.

As mentioned earlier, the Atomic Energy Commission, which was the predecessor of the Nuclear Regulatory Commission, issued the license for ANO-1 in 1974.

Over the last 25 years of operation, our employees have worked hard to sustain continued operation of both units well beyond their initial 40-year life through their dedication to highest maintenance standards and a commitment to safety. This is especially evident over the last ten years, where ANO has evolved into one of the most efficient nuclear stations in the industry.

Also I think I need to mention that this area is the home to our employees. Over the plant life, ANO employees have been and continue to be socially responsible and actively support many of the local community activities, including the River Valley United Way and ValleyFest. That's just a few.

Unit 1 is a valuable asset that has continued to improve with time. It is operated more efficiently today than it did when it was new. With this trend and continued improvement, it clearly makes economic sense to pursue renewal of the Unit 1 operating license.

The license renewal process is still relatively new to the industry. As mentioned, Calvert Cliffs station, owned by Constellation Energy Group is the only plant that has completed the license renewal process. The process, however, is sound and we are committed to comply fully with all that is required. The key components of the analysis involved in the license renewal process are the technical

and safety reviews, the environmental reviews, and the opportunities for the public to have comment.

We submitted our license renewal application January 31 as mentioned, which includes over 800 pages of information supporting our analysis.

Preparation of this report was a major undertaking. Thousands of work hours were used to generate this information and to verify that Unit 1 would in fact be a safe, reliable plant in the future.

Now I'd like to turn the program over to Garry Young for description of the environmental aspects of our report.

Garry?

MR. YOUNG: Thanks, Craig.

Good afternoon. First of all, I'd like to introduce some of the team members who worked on the environmental report. Rick Buckley, in the back of the room there -- he had the lead on putting the report together for us, and then Natalie Mosher, also back there, had the lead on getting the report to the NRC and for supporting the review by the NRC, which is what we're currently doing. In addition, there were a number of other Entergy personnel and consultants who helped complete this significant effort.

More than 25 years ago Arkansas Nuclear One established a program to monitor the environment. The

purpose of this program is to monitor, maintain, and safeguard the environment around Arkansas Nuclear One's generating facilities. The initial environmental review for Arkansas Nuclear One Unit 1 was completed in the early 1970s. The review laid the foundation for the continuous monitoring that we do today at the site.

As part of our environmental review to support the license renewal application, we reviewed the NRC's generic environmental impact statement and consulted with the United States Fish and Wildlife Service, the Arkansas Natural Heritage Commission, the State Historic Preservation Office, and the Arkansas Game and Fish Commission to ensure that we considered all the issues that were relevant to our continued operation.

The environmental report resulting from our review includes 12 major environmental areas that were assessed. These 12 areas can be grouped into five categories. The five categories are water, plants and animals, air quality, land, and people.

Starting with water, our study included a review of water quality, water flow at the intake and discharge structures, water use, and the fish habitats on Lake Dardanelle. Evaluation of historic data indicates no changes to water resources. There is no planned changes in our operations that result from license renewal. Therefore,

we will continue to maintain the same water quality.

Our second category is plants and animals. We consulted with the United States Fish and Wildlife Service, the Arkansas Natural Heritage Commission, and the Arkansas Game and Fish Commission regarding threatened and endangered species inhabiting Arkansas Nuclear One property and the transmission line corridors built for supporting the operation of Unit 1. Based on these consultations, no records of threatened or endangered species nor species of concern were identified along the transmission line corridor.

In regard to threatened and endangered species on the Entergy property, six species were identified as having geographic ranges that could possibly include the Arkansas Nuclear One property. However, on the six species, only the bald eagle has occasionally been known to visit the site area. Suitable habitat for the other five species does not exist on the site property.

Although there were no state listed threatened or endangered species inhabiting the site property, based on consultation with the Arkansas Natural Heritage Commission there were seven elements of interest identified in their records. Only the Northern Crayfish Frog and the Sandstone Glade Outcrop Habitat has suitable habitat to exist at Arkansas Nuclear One.

Based on the rarity of the Northern Crayfish Frog which has not been observed at the site, the Arkansas Natural Heritage Commission has changed the ranking of this species to a status that requires no protection. In addition, the few areas of Sandstone Outcrop Habitat present on the site property were impacted during initial construction activities and have lost their original habitat value.

In summary, we have concluded that no threatened or endangered species inhabit the Arkansas Nuclear One property and therefore, there is no adverse impact from the continued operation of Unit 1.

The third category is air quality. One of the great benefits of living in Arkansas is the high quality of the air we enjoy. For the past 25 years of operation, Arkansas Nuclear One has not adversely affected the air quality. There are no planned changes in operation associated with the license renewal that would alter the air quality in any way.

As our fourth category, we looked at the relationship between our continued operations and the land around the station. We consulted with the State Historic Preservation office to identify any new information regarding sites of archaeological, historical, or architectural significance on the Arkansas Nuclear One site.

Although not historical or architectural sites were identified, a few archaeological sites of interest were reported to exist around Arkansas Nuclear One.

However, none of these areas are close enough to existing facilities to warrant concern. A map identifying these sites was provided to us and controls are in place to ensure that their archaeological value remains protected.

We also looked at how we will be using our land over the additional operating time. License renewal will not require additional land usage and our activities will remain within the existing site boundaries. Based on these evaluations, we have determined that the renewal of the Unit 1 license will not impact historic, archaeological, or land resources in the community.

Finally, the most important detail, the people who live in the communities around the plant. Arkansas Nuclear One has established a national reputation as a well-run facility. We are committed to protecting the health and safety of the public. This commitment will continue as long as Entergy is a part of this community.

In addition to being a safely operated facility, Arkansas Nuclear One has benefitted the communities in the form of increased tax revenues. Over the past 25 years, Entergy has contributed almost $200 million in taxes to Pope County. The Arkansas Nuclear One facility will also keep

jobs in the community, which helps maintain a strong local economy. Our annual payroll of over $80 million helps support local business and industry.

I, along with many other Entergy employees live here in Pope County. We love living in this area and enjoying the benefits of this community. That is why we share an interest with our neighbors in preserving the environment. Not only do we share this interest on a personal level, but we also share it on a professional level as a part of our jobs as Entergy employees.

We are committed to continue to protect the environment around Arkansas Nuclear One. Although power generation is our business, world-class environmental performance is our goal.

And we have copies of our environmental awareness handbook, which I've got here, and they're available to anyone that's interested on the table outside.

Thank you. And I'll now turn the program back over to Craig.

MR. ANDERSON: I don't know about bald eagles, but we sure have a lot of geese.

Thank you, Garry.

Of course, decisions about the future sources of electricity and generation are not taken likely. Entergy, like most electric utilities, considers every reasonable

alternative before a major decision such as this is made. But the bottom line is license renewal for Arkansas Nuclear One makes the most sense for the environment, for our customers, and for Entergy.

One additional thing I'd like to mention today before we turn this back over, this week we are celebrating 25 years of operation for Unit 1, 20 years of operation for Unit 2. We're going to have a celebration for our employees, but also I'd like to invite folks that live in the area to come tour the plant facilities on Sunday, and the tour times will be essentially on 20-minute intervals between 11 a.m. and 3 p.m.

And let me give you a phone number to call. You can call 858-4545, or e-mail us at anotour@entergy.com, and we'd love to have you out there Sunday and give you a tour of our operation.

Thanks again for attending the meeting today and allow us an opportunity to provide this information to you. I'd also like to express my personal gratitude to the residents of the Arkansas River Valley for the support you've continued to provide ANO over its 25 years of operation, and we look forward to continuing this association.

Thank you.

MR. CAMERON: Craig, thank you very much. We have

one other commentor -- formal commentor this afternoon, and I'd like Angie Howard from the Nuclear Energy Institute to come up.

MS. HOWARD: Thanks, Chip. I've given a copy of some remarks to the recorder, so let me just try to summarize and tell you a little bit about the Nuclear Energy Institute.

I'm responsible for the industry outreach and communications at NEI, and NEI, Nuclear Energy Institute, is a policy-based organization in Washington that represents all of the nuclear energy industry, in both regulatory interface as well as public out reach and communications, both within the administration and within the Congress.

It's our responsibility to set policy for the industry and help them carry out that policy on a broad basis, both within the United States and representing the US industry overseas. Our efforts focus almost 100 percent, not entirely, but a great deal on the generation of electricity at over 100 nuclear plants around the country, and those 100 nuclear units -- 103 actually -- generate 20 percent of the electricity that we use in the United States.

Here within Arkansas you get 33 percent of your electricity, so you're above average, but I think you already knew that.

We're here today to discuss the environmental

issues surrounding ANO Unit 1 and that license application for that unit. As was said by the NRC representatives, Entergy is one of the first and one of the leaders to start this license renewal process. It's important to think about as you look at what your company represents here in Arkansas, but also the leadership that they have taken in this process for the country.

The first two units have been issued, and that was a historical first for the industry to have the Calvert Cliffs units, complete that license renewal process. The industry started this process over ten years ago of what should we do and how it should be looked at about license renewal; what are all the issues that should be addressed and how we go about that. So it was a real historic event last month when Calvert Cliffs received its license.

We're looking forward to the six units that are in the queue already: in addition to ANO Unit 1, the three units at Oconee and two units at Hatch. But beyond that, there are 22 additional units around the country that have already told the NRC that they're planning, they're preparing applications, and planning to file with the NRC by the end of 2003.

Now, that will represent about 30 percent of the nuclear units in this country, and there are many more that are stepping up to the queue as those nuclear units continue

their operation and reach the time in which they would make the decision on going forward.

What we're seeing then is a very strong, solid support for the renewed licenses. It means a lot to the entire country. License renewal for plants is important for energy security for our nation and for the environmental needs, and we're seeing growing policy maker awareness within the Congress and internationally about the need to continue the clean air and other environmental benefits that nuclear energy provides, as well as a reliable source of electricity.

I won't go into the process that the NRC and the industry developed to look at both the generic aspects of license renewal as well as the specifics. I would like, though, to just commend the NRC for starting that process for developing the generic environmental impact statement so that we could accomplish much of the license renewal process in a generic basis so that when we came to the individual sites, concentration and effort could be placed on what was site specific so that the public could be involved in that process as well.

But throughout the process of I guess close to ten years of development of what were the regulations and what were the generic issues, the public was involved all along the way, and that's important to have that input and to

continue to have that input, and I would encourage you to continue that here.

What exactly does license renewal mean -- and suddenly I'd like to say -- give you three different aspects. First, it will permit the United States to maintain economic electric generation that does not produce the greenhouse gases or other atmospheric pollutants such as sulfur dioxide, nitrogen oxide, and particulates. That's very important.

Garry, I think you mentioned the clean air benefits that you enjoy here in Arkansas, and I certainly observed that driving out this morning. However, not all of the country enjoys the clean air benefits that you have in Arkansas, and in fact, the control pollutants are a very important part of how we can clean up our air in the future.

And so 30 percent of generation in this country is non-emitting. That's 20 percent of nuclear and roughly 10 percent from hydroelectric. Nuclear represents the only large-scale form of non-emitting generation that can be expanded, so it's important that we not only maintain our existing plants but also through license renewal provide that longer term for an additional of the license of clear air, non-emitting generation.

Second, the license renewal will preserve good jobs for Americans, and communities where these plants are

located will retain substantial tax revenue, and that's important from a community standpoint on quality of life.

And third, the renewal of a plant's license is far more economical than building any new kind of generating facility, and as we're going forward and particularly looking at restructuring of the electricity industry throughout this country, it's an important economical consideration to make that it can provide an additional 20 years of electricity.

One of the jobs that my company does for the industry is to track public opinion and public opinion polling. And over the last couple of years, as we have really been into a lot of active public involvement in license renewal, we've been asking the question on a representative sample of the American public, do they favor the continued operation of the renewed license of nuclear facilities that meet all safety standards, and an overwhelming 87 percent of the public support license renewal.

And I think that is significant as we go forward, and knowing that the public will support this and the industry will meet its environmental claims.

So let me close by commending Entergy and the nuclear professionals at ANO Unit 1 as well as Unit 2 for being a leader within the industry, and the NRC for

conducting a fair and effective review of the environmental consequences of license renewal. Thank you.

MR. CAMERON: Thank you very much, Angie.

Do we have other comments of any type, any statements, any questions from any of you out there on this process? As Tom Kenyon mentioned, the NRC is going to be back after the draft environmental impact statement, is prepared to discuss that with you. But is there anything else at this point?

[No response.]

MR. CAMERON: Okay. The NRC staff or contractors from Pacific Northwest are here. We have some of our NRC regional folks with us today from Region 4. So if you want, just feel free to discuss with them informally anything that's on your mind, and I guess we can close this meeting.

Thank you very much.

[Whereupon, at 2:40 p.m., the meeting was concluded.]

REPORTER'S CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

NAME OF PROCEEDING: PUBLIC MEETING - ENVIRONMENTAL REVIEW FOR THE ARKANSAS NUCLEAR ONE, UNIT 1 LICENSE RENEWAL APPLICATION

CASE NO:

PLACE OF PROCEEDING: Russellville, Arkansas

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.

Laurel H. Stoddard

Laurel H. Stoddard
Official Reporter
Ann Riley & Associates, Ltd.

Environmental Scoping Meeting

Nuclear Regulatory Commission
April 4, 2000

Introduction

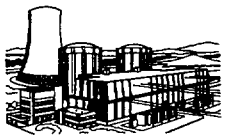
- Purpose
- Statutory background
- National Environmental Policy Act
- Review process
- Schedule
- Public comment

Arkansas Nuclear One Unit 1 (ANO-1) License Renewal

- Unit 1 only
- Operating license to expire in 2014
- Application requests authorization to operate ANO-1 for an additional 20 years
- Entergy's license renewal application includes their Environmental Report

ANO-1 License Renewal Environmental Review Milestones

- Application received - 1/31/00
- Application accepted for docketing - 3/3/00
- Notice of Intent - 3/10/00



- Scoping meeting - 4/4/00
- Comment period - 3/10/00 - 5/9/00

Purpose of Today's Meeting

- Describe the environmental review process
- Identify environmental areas that the staff typically evaluates
- Provide the review schedule
- Accept any comments you may have today
- Describe how to submit comments

NRC Mission

- NRC governed by:
  - Atomic Energy Act
  - Energy Reorganization Act
  - National Environmental Policy Act (NEPA)
  - other statutes
- Mission statement:
  - health and safety protection
  - environmental protection
  - common defense and security

What is License Renewal?

- Atomic Energy Act
  - Limits term of license
  - Allows for renewal
- License Renewal (10 CFR Part 54)
  - Operate an additional 20 years beyond current license term
  - NRC review
  - Public participation
  - Commission decision

7

Purpose and Need

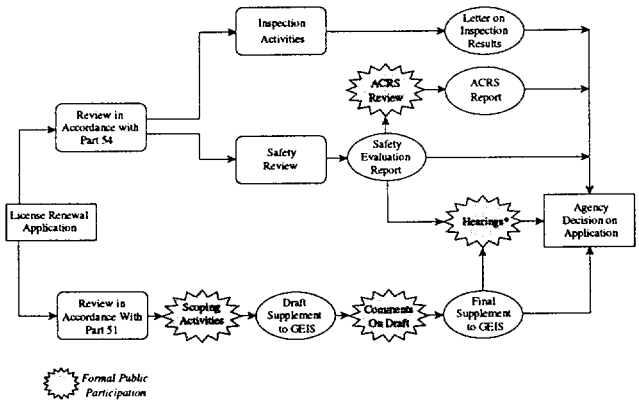
Renewal of an operating license

"... to provide an option that allows for power generation capability beyond the term of a current nuclear power plant operating license to meet future system generating needs..."

Generic Environmental Impact Statement for Licence Renewal of Nuclear Plants NUREG-1437

8

License Renewal Process



9

National Environmental Policy Act

- NEPA requires Federal agencies to use a systematic approach to consider environmental impacts
- Environmental Impact Statement (EIS) is required for major federal actions significantly affecting the quality of the human environment
- License renewal is considered a major federal action

10

Staff's Objective of Environmental Review

To determine whether:

The adverse environmental impacts of license renewal for ANO Unit 1 are not so great that preserving the option of license renewal for energy planning decision makers would be unreasonable.

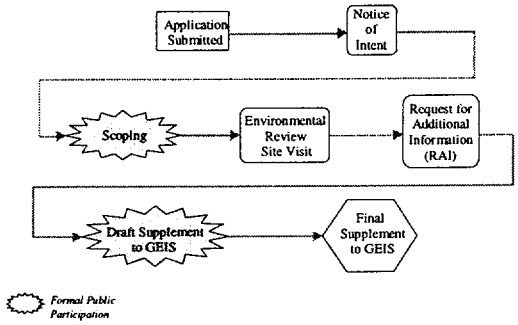
11

How We Implement NEPA

- Regulations
  - 10 CFR Part 51
  - Generic Environmental Impact Statement (GEIS)
- Regulatory Guidance
  - Environmental Standard Review Plan for License Renewal

12

Environmental License Renewal Process



NEPA Process

- Notice of Intent - notifies public of NRC's plans to prepare an EIS
- Scoping Process - identifies scope of EIS and solicits public input
  - Public Meeting
  - Public Comment Period

NEPA Process (continued)

- Review - evaluates environmental impacts, alternatives, & mitigation measures
- Issue draft EIS for public comment
  - Public Meeting
  - Public Comment Period
- Issue final EIS

Information Gathering Process

- Review Entergy's application
- Visit site and review Entergy's process for identifying new information
- Evaluate input received through public scoping process
  - All comments received during the comment period will be considered

Information Gathering Process (continued)

- Visit county, regional, and State government environmental and resource regulators
- Visit information service agencies
- Verify environmental permits and requirements for continuing operations
- Discuss consequences during renewal term with regulating agencies

What Do We Look At?

- Generic Environmental Impact Statement for License Renewal (GEIS, NUREG-1437)
  - Identified 92 issues of potential consequence
    - 68 issues resolved generically (Category 1)
    - 24 issues looked at on plant-specific basis (Category 2 or unassigned)
- Staff also looks for any significant new information not identified in GEIS

Areas Reviewed

- Surface water quality, hydrology, & use
- Aquatic ecology
- Ground-water use & quality
- Threatened or endagered species
- Air quality
- Land use
- Uranium fuel cycle & waste management

19

Areas Reviewed
(continued)

- Human health
- Socioeconomics
- Postulated accidents
- Decommissioning
- Environmental justice
- Alternatives to license renewal

20

Issues Not Considered In Environmental Review

- Need for power
- Cost of power
- Spent fuel disposal (except for transportation)
- Safety-related issues

21

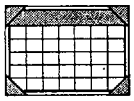
Public Comments

- Comment period ends on May 9, 2000
  - 60 day comment period
- All comments received during the comment period will be considered
- Comments not bearing on decision to renew license will be referred to appropriate NRC programs.

22

ANO-1 License Renewal Environmental Review Milestones

- Application received - 1/31/00
- Notice of Intent - 3/10/00
- Scoping Meeting - 4/4/00
- Comment period - 3/10/00 - 5/9/00
- Draft EIS issued - 12/00
- Final EIS issued - 7/01



23

Point of Contact

- Agency point of contact:

  Thomas J. Kenyon
  1 (800) 368-5642

- Documents located at Pendergraft Library at Arkansas Tech University, and can be viewed at NRC's Web site (www.nrc.gov)
- Provide comments: by mail, in person, or e-mail at anoeis@nrc.gov

24

ORIGINAL

OFFICIAL TRANSCRIPT OF PROCEEDINGS

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

Title: PUBLIC MEETING - ENVIRONMENTAL REVIEW FOR THE ARKANSAS NUCLEAR ONE, UNIT 1 LICENSE RENEWAL APPLICATION

Case No.: 50-313

Work Order No.: NRC-1211

LOCATION: Russellville, Arkansas

DATE: Tuesday, April 4, 2000

PAGES: 1 - 41

ANN RILEY & ASSOCIATES, LTD.
1025 Connecticut Avenue, NW, Suite 1014
Washington, D.C. 20036
(202) 842-0034

ATTACHMENT 2

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

***

PUBLIC MEETING - ENVIRONMENTAL REVIEW

FOR THE ARKANSAS NUCLEAR ONE, UNIT 1

LICENSE RENEWAL APPLICATION

Holiday Inn Russellville

Route 7 and I-40

Russellville, Arkansas

Tuesday, April 4, 2000

The above-entitled meeting commenced, pursuant to notice, at 7:00 p.m.

PANEL MEMBERS:

FRANCIS X. CAMERON, Facilitator

THOMAS KENYON

BOB PRATO

CYNTHIA CARPENTER

ANN RILEY & ASSOCIATES, LTD.
Court Reporters
1025 Connecticut Avenue, NW, Suite 1014
Washington, D.C. 20036
(202) 842-0034

P R O C E E D I N G S

MR. CAMERON: I'd like to welcome all you to the NRC public meeting on the development of the environmental impact statement for the review of the license renewal application for Arkansas Nuclear One Unit 1.

My name is Chip Cameron and I'm the special counsel for public liaison at the NRC, and I'm going to serve as your moderator tonight, and I'd just like to do three things before we turn it over to our speakers and to all of you out there. One, talk about the objectives for the meeting; secondly, talk about the ground rules for the meeting; and third, to just give you a preview of what the agenda is going to be like.

In terms of objectives, the NRC would like to explain to all of you what the process is for the renewal -- the evaluation of license renewal applications, and specifically the environmental impact statement process, And you may hear us use an acronym EIS or GEIS tonight. That refers to the environmental impact statement that the NRC is going to develop to help guide their decision on whether to renew the license at Arkansas Nuclear One.

And scoping is a term used in connection with the preparation of an environmental impact statement and scoping helps the NRC through talking to people like you and through doing its own investigations to determine what types of

potential environmental impacts should be evaluated in the environmental impact statement. And we want to explain this to you and we also want to go to you and hear any comments or suggestions that you have relative to the environmental impact statement.

There is a written comment period, if you want to submit written comments on the scoping issues, and we'll tell you more about that, but we wanted to talk to you in person tonight and make sure that we got the information that we needed to get across to you clearly and hear from you.

In terms of ground rules for the meeting tonight, we're going to have a few brief presentations from the NRC staff and we're going to go on to you for questions and comments. If you want to say anything, just signal me and I'll bring you this talking stick out and state your name and affiliation if appropriate for the record. We're keeping a transcript tonight, and that will help us to make sure that we evaluate any comments that are made this evening.

And in terms of agenda, we're going to go to Cynthia Carpenter, who's the branch chief for the branch at the Nuclear Regulatory Commission that is developing the environmental impact statement. Cindi is going to talk to us about the purpose of the meeting, and then we're going to

go to Bob Prato, who is going to talk to you about the license renewal process generally, and particularly the safety issues involved in the license renewal.

We're here to talk about environmental issues, but we want you to understand what the total context is and how the environmental issues and the safety issues fit into the NRC's review.

After Bob is done, we'll go to you for any questions and then we'll go to Tom Kenyon right here, who is in Cindi's branch, and Tom is going to talk about the environmental impact statement process for you, and then we'll open it up for questions. If anybody has a prepared statement that they want to make, we'll get to that later on this evening. And we just thank you for coming out tonight and if there's anything that isn't clear, please ask us and we'll try to explain it.

And I think with that, I'll turn it over to Cindi.

MS. CARPENTER: Good evening, and again, thank you very much for coming.

My name is Cindi Carpenter and I am the branch chief in charge of the Generic Issues, Environmental, Financial, and Rulemaking Branch. We're within the office of Nuclear Reactor Regulation in the NRC.

We're here today to talk about the environmental review that the Nuclear Regulatory Commission is undertaking

as part of Entergy's application to renew the operating license for Unit 1 of Arkansas Nuclear One. We'll talk a little bit about the statutory requirements for this action, the purpose of the review, the process that we go through, and a schedule that we're working to.

More importantly, we will provide you the opportunity to give us input on the scope of our environmental review or to ask any questions on anything that you've heard today.

To provide you with some background, the operating license for the Arkansas Nuclear One Unit 1 will currently expire in 2014. As will be discussed later, the Atomic Energy Act allows a licensee such as Entergy to renew its license for up to 20 years. Part of the license renewal process requires the NRC to systematically consider environmental impacts during its decision-making process on this matter.

Arkansas Nuclear One submitted its license renewal application in January of 2000, and we accepted it for review on March 3. We issued our notice of intent to develop an environmental impact statement on March 10. On the same day we began the 60-day comment period during which we'll receive comments from members of the public on the scope of our environmental review. These comments will help the staff determine whether it should focus its review in

any particular technical area while determining the acceptability in the environmental aspects of the ANO-1 license renewal, and that's why we're here today.

The purpose of today's meeting is to describe the environmental review process to you to identify environmental areas that the staff typically evaluates, to provide to you the review schedule, accept any comments that you may have today, and explain how to submit comments before the end of the comment period.

Before we go into the details of the review of the NRC's environmental review, Mr. Bob Prato, who is the project manager for the safety review of the License Renewal and Standardization Branch, will provide you an overview of the license renewal process.

Thanks.

MR. PRATO: Good evening. Before I get into my presentation I want to extend my branch chief's apologies for not being here. He was scheduled to give this presentation and unfortunately, he had a death in the family over the past weekend, so I'm going to do my best to give his presentation and then answer any questions on the technical safety evaluation.

The NRC mission is to regulate the nation's civilian use of nuclear materials and to ensure that there's adequate protection to the public health and safety, to

promote the common defense and security of nuclear facilities, and to protect the environment. This mission and the NRC's authority to perform this mission is derived from the Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974, as well as amendments to those acts and other legislation involving security, waste, and energy policies.

The NRC regulations are issued under Title 10 of the United States Code of Federal Regulations, more commonly known as 10 CFR. For commercial nuclear power reactors, the NRC regulatory function includes licensing of these facilities. A nuclear power plant license is based on a set of established regulatory requirements to ensure that the design and proposed operations are performed based on radiological safety standards.

NRC conducts routine inspections to ensure that the plant design and operation conform to the licensing requirements, and enforcement actions are taken in the event that these requirements are not being met.

The Atomic Energy Act and NRC regulations limit commercial power reactor licenses to 40 years, but it also permits the renewal of those licenses for periods of up to 20 years.

The 40-year term was originally selected on the basis of economic and anti-trust considerations, not

technical limitations. However, once that 40 year time limit was established, the design of several systems and structures and components were engineered on the basis of an expected 40-year service life. The operating requirements for the initial 40-year license are contained under 10 CFR Part 50.

When the first reactors were constructed, major components were expected to last the entire 40-year service life. Operating experience has demonstrated that these expectations were not realistic for some of the major components such as the steam generators and pressurized water reactors.

However, continued research conducted over the past decade and continued operating experience has demonstrated that there are no technical limitations to plant life since these major components can be replaced or refurbished. Thus, the plant life is determined primarily on economic considerations. As a result, the NRC established regulatory requirements in 10 CFR Part 54 for the renewal of operating licenses.

The rule, which was initially issued in 1991 and later revised in 1995 has three basic technical requirements. The first requirement is that the current licensing basis for each licensee carries forward into the renewed licensing period.

The second requirement was that an applicant needs to demonstrate that applicable aging effects will be adequately managed for a defined scope of long-lived passive structures and components. And the reason that the scope is limited to the long-lived passive structures and components is because the commission determined that aging of short-lived active components are adequately managed under the current licensing basis. And since the current licensing basis carries forward into the renewed period there was no need to include short-lived active components in the scope of the license renewal.

Finally, the rule also required that certain time-dependent design analysis be identified and reevaluated. A new license can be granted upon a finding by the commission that applicable aging effects will be adequately managed for the period of extended operation, and based on the environmental review findings.

The United States currently receives about 20 percent of its power from the 103 operating nuclear power plants. The electricity sector is moving rapidly to a deregulated environment in which the energy supply choices will be dictated by the costs to the public.

At the same time, there are growing pressures to limit fossil fuel emissions because of the continued concerns for clean air and the potential global climate

changes. Deregulation and competition have raised the interest in license renewal to strategic importance because large generating plants become vital economic assets to the US economy.

Operating nuclear plants are expected to remain competitive after retail electricity restructuring, provided that the costs associated with operating the plants safely in the future can be reasonable and predictable. Some currently operating US plants will not apply for license renewal for economic reasons. However, the NRC established the license renewal requirements so that any plant that is financially and materially capable of operating safely beyond its current operating term will have the opportunity to pursue a renewed license.

And it's also intended to provide a clearer understanding of the requirements for such extended operation as is described in the generic environmental impact statement for license renewal.

Calvert Cliffs, which is located 50 miles south of Washington, DC, was the first plant to apply for renewed license and has since received that license a couple of weeks ago. ANO Unit 1 is the third plant, and we received their application on February 1, 2000. There are many other plants that are interested in license renewal today, and they're interested because they want to ensure that they

clearly understand what requirements will be necessary for an extended license for the future financial planning.

The licensing process consists of parallel technical and environmental reviews, which will be documented in a safety evaluation report for the aging management review aspects of the renewed application and a supplement to the generic environmental impact statement for the environmental impact review. The aging management findings and the NRC's safety evaluation will be verified by NRC inspections. The renewal application and safety evaluations will also be reviewed by the NRC Advisory Committee on Reactor Safeguards in accordance with the usual practices for the issuance of a license.

The NRC plans to complete a safety evaluation report for ANO-1 renewal application, which will address the scope of long-lived passive system structures and components, the applicable aging effects for those systems, structures, and components, and the aging management programs that Entergy will rely upon to ensure that the plant is safely maintained during the period of extended operation.

The initial report will identify open items and confirmatory matters related to the safety review under Part 54 that must be resolved before the commission can complete its decision for a renewed license. That report will be

available to the public.

The NRC licensing process includes a formal process for public involvement through hearings conducted by a panel of administrative law judges who are called the Atomic Safety and Licensing Board. That process consists of a petition to hold a hearing on particular issues to be litigated in front of the board.

Regardless of whether there is any formal hearing on the ANO renewed application, interested members of the public who are concerned about nuclear safety issues can raise those issues informally during the various public meetings that the NRC will hold with Entergy to discuss the safety aspects of the proposed extended plant operation. Time is provided at the conclusion of each meeting for public comment and questions.

Although many meetings on technical issues are held in Rockville, Maryland, some technical meetings and the meetings to summarize the results of NRC inspection findings will be held near the plant in a facility accessible to the public.

The safety evaluation report, meeting summaries, and other related correspondence are available to the public in various means, the most common means being the NRC website, which is at www.nrc.gov. And you'll find information under the icon labeled reactor and license

renewal.

The Advisory Committee on Reactor Safeguards, more commonly known as ACRS, performs an independent review of the renewal application and the staff safety evaluation, and they report their findings and recommendations directly to the commission. They also hold public meetings which are transcribed. Oral and written statements can be provided during the ACRS meetings in accordance with the instructions described in the notices of their meeting in the Federal Register.

At the end of the process, the final safety evaluation report, the final supplement to the environmental impact statement, the results of the inspections, the staff recommendations, and the ACRS recommendation are all submitted to the commission. Those documents and the formal commission meeting to discuss the staff's recommendations are also accessible to the public. After a public commission meeting, each commissioner will vote on the proposed action, and a decision is formally sent to the NRC staff for whatever actions they conclude are appropriate for the renewal application.

Independent of the license renewal application review activities, the NRC continues to conduct its regulatory inspections and oversight activities associated with the current license. The NRC inspection and plant

performance reviews are evolving with the NRC's initiative to improve the regulatory oversight process.

If you are interested in learning more about the new inspection and oversight processes, there is information available on the NRC web, and in NUREG -1649, Rev 1, and that you can also find on the web. The normal regulatory process and amendments to the existing license will be continued in parallel with the renewed application review and address matters of interest such as operating events, spent fuel storage, security, and emergency planning.

That ends Mr. Grimes's presentation. Are there any questions on the safety evaluation?

[No response.]

MR. CAMERON: Any questions for Bob on this before we go on to the environmental?

[No response.]

MR. CAMERON: Okay. Let's go to -- Tom Kenyon will talk about the environmental, and I should note have some scouts in the back that are attending, and we're glad that they're here to show some interest in this.

Tom?

MR. KENYON: Hello. My name is Tom Kenyon, and I'm the environmental project manager for the ANO Unit 1 license renewal. I work for Cindi Carpenter. I intend to spend the next half an hour talking about the process

required by the National Environmental Policy Act, what we call the NEPA process, and then describe how the staff incorporated that process into our regulations, and more specifically, how it is being applied to ANO Unit 1 license renewal.

NEPA was enacted in 1969 and requires all federal agencies to use a systematic approach to consider environmental impacts for certain decision-making proceedings. It is a disclosure tool that involves the public, which is why we are here today. It involves a process whereby information is gathered to enable federal agencies to make informed decisions, and as part of that process we document that information and invite public participation to evaluate it.

The NEPA process results in a number of different kinds of documents, but chief among them are the environmental impact statement, or what we call an EIS, which describe the results of the rigorous and detailed review that we do to evaluate environmental impacts of a proposed action that may significantly affect the quality of the human environment.

Now, the NRC has already determined that license renewal is such a major federal action, and that's why we're here today. We're going to be developing an environmental impact statement on ANO Unit 1, which will discuss the

environmental impacts of operation for the additional 20 years.

This slide describes the objectives of our environmental review, and I find it's best if I just read it to you. "The staff is trying to determine whether the adverse environmental impacts of license renewal for ANO Unit 1 are not so great that preserving the option of license renewal for energy planning decision makers would be unreasonable."

Now, that's what the regulations say, but -- so let me paraphrase it. We're basically trying to determine whether or not renewing the ANO Unit 1 license is acceptable from an environmental standpoint.

To give you a little bit of history, I'd like to spend a few moments describing how the staff incorporated the NEPA process into our regulatory framework at the NRC, and then how we perform an environmental review.

The NRC's implementing regulations for carrying out the NEPA process are found in Part 51 of Title 10 of the Code of Federal Regulations, what we call 10 CFR Part 51. This regulation outlines the contents of the environmental impact statements and briefly describes the process that the NRC uses in order to meet the requirements of NEPA.

Early on in establishing the license renewal process back in the '80s and early '90s, it was recognized

that the original environmental impact statements that were written for the plants when they first received their licenses 20 or more years ago would need to be updated to address these additional 20 years of operation. So the NRC undertook a rulemaking effort to modify Part 51 and to amend it to address the environmental impacts of license renewal.

As part of the rulemaking effort on Part 51, the staff developed a generic environmental impact statement, what we call a GEIS, which took a systematic look at the thousands of hours of operating experience at all of the nuclear power plants in the United States. And the reason we did this was to help us identify potential environmental impacts. In addition, the staff developed and we used an environmental standard review plan for license renewal which gives us guidance on how to perform these reviews.

Now, there are copies of 10 CFR Part 51, the GEIS, and the Environmental Standard Review Plan outside on the table for you to take a look at. These documents can be viewed on the Internet at our website, and can be obtained from the Government Printing Office. And in addition, some of this information can be looked at at the Pendergraft Library at Arkansas Tech.

This next slide shows a little more detail of the environmental review process that was shown on the earlier slide, and since I'm going to be talking about the process

for the next couple of minutes, you might want to refer back to it from time to time.

Now, as far as the NEPA process goes, there are certain steps that we at the NRC are required to follow, and these steps are consistent for all environmental impact statements prepared by all federal agencies for any proposed major federal action.

The first step is the notice of intent in which we notify the public of the our plan to develop an environmental impact statement. For ANO-1 that was issued last month in the Federal Register.

To prepare for the review, the staff has assembled a team of NRC staff with backgrounds in the specific technical and scientific disciplines that are required to perform these environmental reviews. In addition, to supplement the technical expertise of the staff, we engaged the assistance of Pacific Northwest National Laboratory to ensure that we had a well-rounded knowledge base to perform this review. We put together a team of about 20 people to conduct this review, most whom are here today to hear what you have to say and to answer any questions that you might have.

The next step is the scoping process, which is where we are today. During this period we will be identifying issues to be addressed in the environmental

impact statement. The scoping period for ANO-1 began on March 10 with the issuing of the notice of intent, and will end on May 9. Today we are holding two public meetings to describe what it is we're doing and to get input from you.

During this time, we are seeking information to define the scope of the environmental impact statement and to determine what needs to be studied in detail and what does not need to be studied in such detail. Not only are we soliciting input from you, but we're also going to be talking to federal, state, and local officials in the area.

Once we have enough information to establish the scope of the review, the staff looks at a number of issues, including, obviously, the environmental impacts, possible alternatives to license renewal and what those environmental impacts would be, and we also look at possible mitigation measures, which are things that can be done that would decrease the environmental impact of license renewal.

After we finish our environmental review, we will issue a draft environmental impact statement for public comment. This will be a supplement to the GEIS, as we rely on the GEIS for part of our conclusions. The report is a draft not because it is incomplete, but rather because we are at an intermediate stage in our decision-making process, and so we're planning on having another public comment period eight to nine months from now to allow you to take a

look at the results of our review and to provide any additional comments that you might have.

We will also hold two public meetings during that second comment period to describe the results of our review and to solicit any additional comments. After we gather the comments and evaluate them, we may decide that we need to change the environmental impact statement, and then after we finish that document then we're going to go ahead and issue the final environmental impact statement.

Now that I've given you a general idea of the overall process, let's talk about what we're going to be doing in the near term. We're going to be reviewing Entergy's application. We're in the process of visiting the site now, and we're going to be reviewing their process for identifying new information, and we're going to evaluate all the input that we receive during the scoping period.

I want to point out that any comments that are received during the scoping period will be considered, reviewed, and evaluated. And in addition, we're going to be obtaining needed information on ANO Unit 1 from local, state, and federal authorities as listed up here.

By now I expect you're wondering what it is we really do look at. The GEIS was published as NUREG-1437 and was issued back in 1996. It formed the basis for the rule revisions in Part 51. And at that time, the NRC worked with

the states, the Council on Environmental Quality, the Environmental Protection Agency, and a number of other groups and held a series of public workshops to help develop the guides.

Suffice it to say that during that time the staff did its best to identify what potential environmental issues needed to be looked at during this license renewal period. The staff identified and categorized the environmental impacts that were specific to license renewal and we came up with 92 potential issues. When the staff evaluated the 92 issues, it found that some of these were generic in nature, and that is they were common to all plants, regardless of their design or where they were sited.

The NRC wanted to categorize them differently from those that needed to be evaluated on a plant-specific basis, and so we designated the generic impacts as being in Category 1, and those that need to be looked at on a plant-specific basis as being in Category 2.

An example of a Category 1 issue is off-site radiological consequences. When developing the GEIS, the staff looked to see if off-site doses during the renewal period would be likely to exceed the current levels associated with normal operation that we see today. We performed a historical review and determined that doses to the public have been maintained well below those allowed by

the regulations.

The staff could see no reasons that those doses would increase due to the extended period of operation, provided that the monitoring and control programs continued to be implemented acceptably. Because expected radiological impacts apply to all plants in a similar manner and the significance level of the off-site radiological impact is considered small at all plants, the staff concluded that this issue could be addressed on a generic basis as a Category 1 issue.

That does not mean that we're not going to look at this issue any more. What it means is that we're going to be looking only for significant new information that would lead us to change the conclusions that we made on this issue four years ago.

There were 68 issues that were resolved generically in the GEIS, and as part of our review, we require all the applicants to inform the NRC in its application of whether it is aware of any new and significant information on these issues. During the scoping phase of the review, we will also look at the comments from members of the public that we receive, and also the discussions that we have with the federal, state, and local authorities on these issues.

Now, if some new and significant information is

revealed by this process, then that information will be included in our review to determine the environmental impact, and if not, we will adopt the generic conclusions in the GEIS. All the remaining 24 issues will be looked at on a -- that were identified in the GEIS will be looked at on a plant-specific basis.

And finally, the review process is designed to help the NRC determine whether or not there are any significant new issues that we missed, that we did not identify four years ago and therefore are not covered in the GEIS. New issues specific to ANO Unit 1 may be revealed as a result of the scoping process, and if something new is identified that was not considered in the GEIS, then we will review it on a plant-specific basis as a Category 2 item.

The next two slides give you an idea of the areas we review. The first slide are the ecological areas, such as aquatic and land use, ecology, threatened and endangered species. The second slide shows you some of the other areas that we look at, including human health, social economics, and as I mentioned earlier, alternatives to license renewal.

Now, the regulations identify some issues that we do not look at, including the need for power, the cost of power, and spent fuel disposal, except for transportation in this immediate area. In addition, my environmental review team will not be looking at the safety-related issues. That

will be covered through the review that Mr. Prato here is managing.

After the comment period ends in May, the staff will assess all the comments to determine whether or not they are applicable to the environmental aspects of the license renewal. Issues that do not have a bearing on the decision to renew the license will be referred to the appropriate program managers, such as the operating plan project manager or allegations coordinator, and some issues may even be referred to other agencies as appropriate.

This slide gives you the current schedule for review. We hope to be finished with the environmental review by July 2001. If there are no hearings and if the review goes smoothly, we hope to improve on that schedule, and so to ensure that you are informed of any schedule changes, I would recommend that you provide your name and address to the people in the outside room so that we can include you on our distribution lists. That way we will inform you of any upcoming public meetings on environmental review and we'll provide you with copies of the draft and the final environmental impact statements.

This last slide provides you with my phone number in case you have any additional questions after we leave today. I am the designated point of contact within the NRC for the environmental portion of the license renewal review.

All of the documents that we spoke about today can be viewed at the NRC's home page on the Web, and in addition, the Pendergraft Library at Arkansas Tech has agreed to make a copy available of the application, the GEIS, and the Code of Federal Regulations.

There's an information sheet in the back that can give you information on how to obtain this information if you want to get it. Comments can be provided by mail, in person, or by e-mail, and that information sheet also gives you detailed information on how to provide your comments.

In closing, I want to thank you for your attention. This ends our formal presentations. But before we continue I want to thank you for attending today's meeting, because public participation is an important part of the overall license renewal process. It's important that you participate because it makes for a better process. After all, you know this area better than we do.

And now I'd like to turn this back over to Chip and offer you the opportunity to ask any questions or provide us with any comments.

MR. CAMERON: Thank you very much, Tom.

Do we have any questions for Tom about the process he outlined, or are there any specific types of environmental impacts that you think should be evaluated by the Nuclear Regulatory Commission in preparing the draft

environmental impact statement?

[No response.]

MR. CAMERON: Okay. Well, thank you.

We're going to go to the next segment of our program at this point, and we have some individuals who would like to make some more formal statements to us, and I think it's appropriate to have Craig Anderson, who is the vice-president of ANO come up and talk to us a little bit about the application and the plant.

Craig?

MR. ANDERSON: Thank you, Chip.

Good evening, and I would like to thank each of you for your attendance tonight.

AS Chip mentioned, I am the vice-president at the ANO, which is operated by Entergy Operations, Incorporated. I've also been a resident of the river valley for almost 19 years, so I have a very special appreciation for the area and for the folks that live in the river valley.

We'll be ~~use~~ using our time tonight to provide an overview of the environmental report. This report is an important part of the license renewal process. Assisting me today will be Garry Young. Garry is a senior lead engineer at ANO and has been the project lead for the Unit 1 license renewal project. Garry holds a master's degree in mechanical engineering from the University of Arkansas.

Tonight we'll cover some general information on ANO, the license renewal, our application, and then Garry will cover the summary of the environmental report.

Arkansas Nuclear One is a two-unit nuclear station located in Western Pope County, about five miles west of Russellville near the city of London. The two units have a combined generation capacity of approximately 1,700 megawatts, and the units are generally the same with each having a pressurized water reactor system, yet they are dissimilar in that both of the reactor systems and turbine generator systems were designed by different vendors. Unit 1 and Unit 2 have separate operating licenses. Renewal of the Unit 2 operating license is also planned after the license renewal process is complete for Unit 1.

Over the years, ANO has demonstrated high levels of safety and reliability, and serves as an economical source of electricity generation for Entergy customers. Even if you add the cost of construction, future cost of operation and maintenance, and license renewal, Unit 1 is projected to be a sound, cost-effective supplier of electricity.

The Atomic Energy Commission, which was the predecessor of the Nuclear Regulatory Commission, issued us a 40-year license to operate Unit 1 in 1974. Over the last 25 years, our employees have worked hard to sustain

continued operation of both units well beyond their initial 40 years through their dedication to the highest maintenance standards and a commitment to safety. This is especially evident over the last ten years, where ANO has evolved into one of the most efficient nuclear stations in the industry.

As you know, this area is also home to our employees. Over the plant life, ANO employees have been and will continue to be socially responsible and actively support many of the community activities, including such activities ad the River Valley United Way and ValleyFest, to mention a few.

Unit 1 is a valuable asset that continues to improve with time. It is operated more efficiently today than it was when it was new. With this trend and continued improvement, it makes economic sense to pursue renewal of the Unit 1 license, providing the option for continued operation.

The license renewal process is still new to the industry. As mentioned, Calvert Cliffs station, owned by Constellation Energy Group is the only plant that has completed the entire license renewal process. The process, however, is sound and we are committed to comply fully with all that is required of the process. The key components of the analysis involved in the license renewal process are the technical and safety reviews, environmental reviews, and the

opportunities for the public to have comment.

We submitted our license renewal application on January 31, which included over 800 pages of information supporting our analysis. Preparation of this report was a major undertaking. Thousands of work hours were used to generate this information and to verify that Unit 1 would in fact be a safe, reliable plant in the future.

Now I'd like to turn the program over to Garry Young for description of the environmental report.

MR. YOUNG: Thanks, Craig.

Good evening. First of all, I'd like to introduce some of the team members who worked on the environmental report. Rick Buckley, in the back there, who had the lead on putting the report together, and Natalie Mosher, also back there, who had the lead for getting the report to the NRC and for supporting the review by the NRC, which is currently underway. In addition, there were a number of other Entergy personnel and consultants who helped complete this significant effort.

More than 25 years ago Arkansas Nuclear One established a program to monitor the environment. The purpose of this program is to monitor, maintain, and safeguard the environment around Arkansas Nuclear One's generating facilities. The initial environmental review for Arkansas Nuclear One Unit 1 was completed in the early

1970s. The review laid the foundation for the continuous monitoring that we do today at the site.

As part of our environmental review to support the license renewal application, we reviewed the NRC's generic environmental impact statement and consulted with the United States Fish and Wildlife Service, the Arkansas Natural Heritage Commission, the State Historic Preservation Office, and the Arkansas Game and Fish Commission to ensure that we considered all the issues that were relevant to our continued operation.

The environmental report resulting from our review includes 12 major environmental areas that were assessed. These 12 areas can be grouped into five categories. The five categories are water, plants and animals, air quality, land, and people.

Starting with water, our study included a review of water quality, water flow at the intake and discharge structures, water use, and fish habitats on Lake Dardanelle. Evaluation of historic data indicates no changes to water resources. There is no planned change in our operations that result from license renewal. Therefore, we will continue to maintain the same water quality.

Our second category is plants and animals. We consulted with the United States Fish and Wildlife Service, the Arkansas Natural Heritage Commission, and the Arkansas

Game and Fish Commission regarding threatened and endangered species inhabiting Arkansas Nuclear One property and the transmission line corridors built for supporting the operation of Unit 1. Based on these consultations, no records of threatened or endangered species nor species of concern were identified along the transmission line corridors.

In regard to threatened and endangered species on the Entergy property, six species were identified as having geographic ranges that could possibly include the Arkansas Nuclear One property. However, of the six species, only the bald eagle has occasionally been known to visit the site area. Suitable habitat for the other five species does not exist on the site property.

Although there were no state listed threatened or endangered species inhabiting the site property, based on consultation with the Arkansas Natural Heritage Commission there were seven elements of interest identified in their records. Only the Northern Crayfish Frog and the Sandstone Glade Outcrop Habitat has suitable habitats to exist at Arkansas Nuclear One.

Based on the rarity of the Northern Crayfish Frog which has not been observed at the site, the Arkansas Natural Heritage Commission has changed the ranking of this species to a status that requires no protection. In

addition, the few areas of Sandstone Outcrop Habitat present on the site property were impacted during initial construction activities and have lost their original habitat value.

In summary, we have concluded that no threatened or endangered species inhabit the Arkansas Nuclear One property and therefore, there is no adverse impact from the continued operation of Unit 1.

The third category is air quality. One of the great benefits of living in Arkansas is the high quality of the air we enjoy. For the past 25 years of operation, Arkansas Nuclear One has not adversely affected the air quality. There are no planned changes in operation associated with license renewal that would alter the air quality in any way.

As our fourth category, we looked at the relationship between our continued operations and the land around the station. We consulted with the State Historic Preservation office to identify any new information regarding sites of archaeological, historical, or architectural significance on the Arkansas Nuclear One site. Although no historical or architectural sites were identified, a few archaeological sites of interest were reported to exist around Arkansas Nuclear One.

However, none of these areas are close enough to

existing facilities to warrant concern. A map identifying these sites was provided to us and controls are in place to ensure that their archaeological value remains protected.

We also looked at how we will be using our land over the additional operating time. License renewal will not require additional land usage and our activities will remain within the existing site boundaries. Based on these evaluations, we have determined that the renewal of the Unit 1 license will not impact historic, archaeological, or land resources in the community.

Finally, the most important detail, the people who live in the communities around the plant. Arkansas Nuclear One has established a national reputation as a well-run facility. We are committed to protecting the health and safety of the public. This commitment will continue as long as Entergy is part of this community.

In addition to being a safely operated facility, Arkansas Nuclear One has benefitted the communities in the form of increased tax revenues. Over the past 25 years, Entergy has contributed almost $200 million in taxes to Pope County. The Arkansas Nuclear One facility will also keep jobs in the community, which helps maintain a strong local economy. Our annual payroll of over $80 million helps support local businesses and industry.

I, along with many other Entergy employees, live

here in Pope County. We love living in this area and enjoying the benefits of this community. That is why we share an interest with our neighbors in preserving the environment. Not only do we share this interest on a personal level, but we also share it on a professional level as a part of our jobs as Entergy employees.

We are committed to continue to protect the environment around Arkansas Nuclear One. Although power generation is our business, world-class environmental performance is our goal.

Copies of our environmental awareness handbook are available on the table outside the meeting room here for anyone that's interested in a copy.

Thank you. I'll now turn the program back over to Craig.

MR. ANDERSON: Thank you, Garry.

Decisions about future sources of generation are not taken likely. Entergy, like most electric utilities, considered every reasonable alternative before a major decision such as this was made. License renewal for Arkansas Nuclear One makes the most sense for the environment, for our customers, and for Entergy.

Recently ANO Unit 1 celebrated their anniversary or operation. Unit 2 just went over 20 years, and this Sunday we plan to have an open house for the public and

provide tours, take you through an look at a little bit about the operation of the facility, including some simulator demonstrations. If anyone is interested in making reservations for the tour, the phone number to call is 858-4545, or e-mail us at anotour@entergy.com, and I'd encourage everyone to come out Sunday. I think you'll learn something about the facility and hopefully have a good time.

Thanks again for attending the meeting tonight and allowing us an opportunity to provide this information to you. I'd like to express my personal gratitude to residents of the Arkansas River Valley for the support you've continued to provide ANO over its 25 years of operation, and we are definitely looking forward to continuing this association.

Thank you.

MR. CAMERON: Okay. Thank you, Craig, and thank you, Garry.

Our next commentor is Angie Howard from the Nuclear Energy Institute in Washington, DC.

Angie?

MS. HOWARD: Thank you, Chip.

Good evening. I'm Angie Howard with the Nuclear Energy Institute, which as Chip said is based in Washington. However, we represent the nuclear energy and nuclear technologies industry throughout the United States. Those

not only are the power plants that generate electricity but suppliers of fuel. It's the designers, the architect engineers that helped to build and maintain the facility. It's the universities that train the employees and train the educators, the companies that produce radio-pharmaceuticals, and other commercial applications.

So we have a broad base of activity, but our major focus truly is all those companies that generate electricity; the 20 percent, as was said earlier, of our country's electricity is generated by nuclear energy. Here in Arkansas you get 33 percent of your electric power from Arkansas Nuclear One's two units. And in fact, this afternoon after the first meeting we were talking about that, and someone mentioned that there's a lot of power that comes over from Mississippi Grand Gulf, so Arkansas does receive a lot of electricity from nuclear energy.

We're here today to discuss the environmental issues surrounding ANO and that license application for Unit 1. As was said earlier also, Entergy is actually the third utility to seek nuclear plant license renewal. The first two units, Calvert Cliffs, which is near where I live on the Chesapeake Bay, received their license renewal just a couple of weeks ago, and that was truly a historic first from the standpoint of the industry.

All along, as has been explained before, the

process was there. The sense was that these units could continue to operate because they stay maintained from day one. From day one or to the end of the first 40-year term they are safe, well-run facilities. And so it's important that we were able to set up a process that can continue this operation of these nuclear units.

And we have now about 30 percent of the nation's nuclear units -- have informed the NRC they're either in the process, Calvert Cliffs having completed the process, other units in the process, and 22 that have told the NRC that they intend to file applications by 2003, and there are a lot more that will follow.

License renewal for nuclear plants is important to our nation's future energy security and environmental needs, and moreover, there's a growing recognition among the states and in Congress and internationally about the need to continue the clean air and other environmental benefits that nuclear energy affords. Today's public meeting helps ensure that no environmental issues are overlooked as the NRC continues to evaluate Unit 1.

It's important that we look at the alternatives, and ANO has done that. And just a couple of points that you might find of interest -- for example, an alternative in photovoltaic cells were generating 1,000 megawatts of power. That's about the same amount Entergy sought to realize in

Unit 1. That would consume 35,000 acres of land. The wind power plants would require even greater land commitment, some 150,000 acres to generate the same 1,000 megawatts of electricity. So from just a land use standpoint alone, there's a tremendous environmental advantage.

We've heard about the process that the NRC has established in developing the generic environmental impact statement that can cover a lot of the issues that are common to all of the plants. That was important and an important process that went through a lot of public involvement, public debate, and determination. That leaves us the ability to truly focus on the issues that are particular to the site here and any other site that's going through the process, so that we can ensure that the license renewal environmental impact statement is adequate and comprehensive.

So what does exactly license renewal mean? It means an extension of 20 more years of environmental and economic benefits and continued reliable power.

First, license renewal will permit the United States to maintain economic electric generation that does not produce the greenhouse gases or other atmospheric pollutants such as sulfur dioxide, nitrogen oxide, and particulates or carbon. Garry mentioned that you enjoy the clean air benefits here in Arkansas, and I certainly could

attest to that as I drove over from Little Rock today. But not all parts of the country enjoy this kind of environment, and it's important that we maintain the largest source of non-emitting generation in this country, nuclear energy, and we keep it available for our future electric needs and future generations.

Second, license renewal will preserve good jobs for Americans, and communities where these plants are located will retain substantial tax revenues and other benefits, particularly the contributions that the employees of these plants make in the communities.

And third, renewal of a nuclear plant's license is far more economical than building any new generating plant, and as we're going into electricity restructuring in the United States, that's a very important component, that we must look ahead.

One aspect of my job for the industry is to also keep a gauge on public support and public opinion, and I was -- we have been asking the question of the public -- of their opinion of license renewal over the last couple of years. And I was looking at some data as I was coming out of our most recent polling that was done in late February, and we find that consistently over the last couple of years, when asked the question, Do you support the renewal of 20 years of a nuclear plant's license that the plant continues

to meet all safety standards, 87 percent of the public supports license renewal.

So I think you've got a good thing going here. Many people don't realize that nuclear is the largest source of emission-free electricity in America, and it's obvious that it's important from the standpoint of ANO in your community. ANO's two units also provide stable jobs, a strong tax base, and reliable electricity, so I commend Entergy and its leadership and the nuclear professionals at ANO for leading the industry, and also for the NRC for conducting a fair and effective review of the environmental consequences of license renewal.

Thank you.

MR. CAMERON: Thank you, Angie.

There is one official from the State of Arkansas here that I would like to introduce, Dave Snellings right over here, and David is the director of the Division of Radiation Control and Emergency Management, which is within the Arkansas Department of Health. And as some of you may know, the NRC relinquishes its authority to regulate radioactive materials to qualified states, and Arkansas is one of those states.

And it doesn't extend to regulation of reactors, but obviously David would be very, very interested in public

health and safety aspects of that, so I just thought I'd introduce him to all of you.

Are there any other comments here or last minute questions or just questions generally, not last minute questions? Does anybody have anything they want to say for the record before we close tonight?

[No response.]

MR. CAMERON: Any of the NRC staff?

[No response.]

MR. CAMERON: No? All right. Well, thank you again for being here tonight, and you'll see all of us or most of us again when the draft environmental impact statement is completed.

Thank you.

[Whereupon, at 8:20 p.m., the meeting was concluded.]

REPORTER'S CERTIFICATE

This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

NAME OF PROCEEDING: PUBLIC MEETING - ENVIRONMENTAL REVIEW FOR THE ARKANSAS NUCLEAR ONE, UNIT 1 LICENSE RENEWAL APPLICATION

CASE NO:

PLACE OF PROCEEDING: Russellville, Arkansas

were held as herein appears, and that this is the original transcript thereof for the file of the United States Nuclear Regulatory Commission taken by me and thereafter reduced to typewriting by me or under the direction of the court reporting company, and that the transcript is a true and accurate record of the foregoing proceedings.

Laurel H Stoddard

Laurel H. Stoddard
Official Reporter
Ann Riley & Associates, Ltd.

Environmental Scoping Meeting

Nuclear Regulatory Commission
April 4, 2000

Introduction

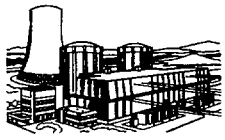
- Purpose
- Statutory background
- National Environmental Policy Act
- Review process
- Schedule
- Public comment

Arkansas Nuclear One Unit 1 (ANO-1) License Renewal

- Unit 1 only
- Operating license to expire in 2014
- Application requests authorization to operate ANO-1 for an additional 20 years
- Entergy's license renewal application includes their Environmental Report

ANO-1 License Renewal Environmental Review Milestones

- Application received - 1/31/00
- Application accepted for docketing - 3/3/00
- Notice of Intent - 3/10/00



- Scoping meeting - 4/4/00
- Comment period - 3/10/00 - 5/9/00

Purpose of Today's Meeting

- Describe the environmental review process
- Identify environmental areas that the staff typically evaluates
- Provide the review schedule
- Accept any comments you may have today
- Describe how to submit comments

NRC Mission

- NRC governed by:
  - Atomic Energy Act
  - Energy Reorganization Act
  - National Environmental Policy Act (NEPA)
  - other statutes
- Mission statement:
  - health and safety protection
  - environmental protection
  - common defense and security

What is License Renewal?

- Atomic Energy Act
  - Limits term of license
  - Allows for renewal
- License Renewal (10 CFR Part 54)
  - Operate an additional 20 years beyond current license term
  - NRC review
  - Public participation
  - Commission decision

7

Purpose and Need

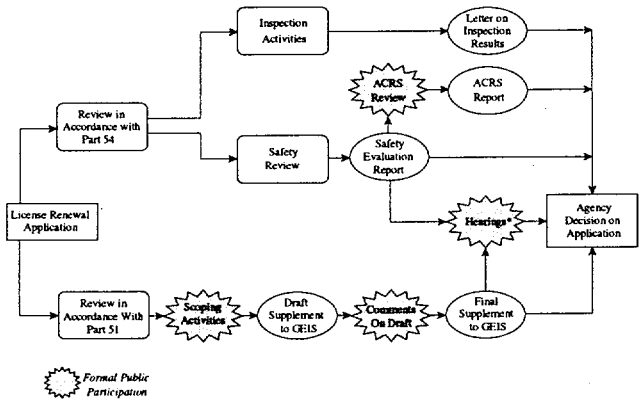
Renewal of an operating license

"... to provide an option that allows for power generation capability beyond the term of a current nuclear power plant operating license to meet future system generating needs..."

Generic Environmental Impact Statement
for Licence Renewal of Nuclear Plants
NUREG-1437

8

License Renewal Process



9

National Environmental Policy Act

- NEPA requires Federal agencies to use a systematic approach to consider environmental impacts
- Environmental Impact Statement (EIS) is required for major federal actions significantly affecting the quality of the human environment
- License renewal is considered a major federal action

10

Staff's Objective of Environmental Review

To determine whether:

The adverse environmental impacts of license renewal for ANO Unit 1 are not so great that preserving the option of license renewal for energy planning decision makers would be unreasonable.

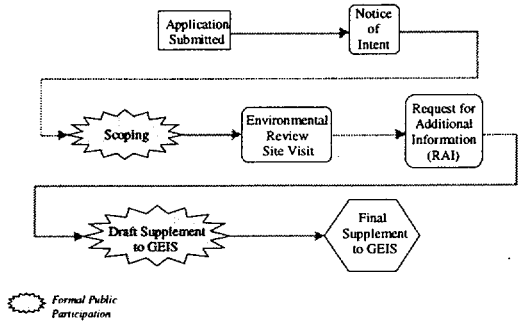
11

How We Implement NEPA

- Regulations
  - 10 CFR Part 51
  - Generic Environmental Impact Statement (GEIS)
- Regulatory Guidance
  - Environmental Standard Review Plan for License Renewal

12

Environmental License Renewal Process



NEPA Process

- Notice of Intent - notifies public of NRC's plans to prepare an EIS
- Scoping Process - identifies scope of EIS and solicits public input
  - ▷ Public Meeting
  - ▷ Public Comment Period

NEPA Process (continued)

- Review - evaluates environmental impacts, alternatives, & mitigation measures
- Issue draft EIS for public comment
  - ▷ Public Meeting
  - ▷ Public Comment Period
- Issue final EIS

Information Gathering Process

- Review Entergy's application
- Visit site and review Entergy's process for identifying new information
- Evaluate input received through public scoping process
  - ▷ All comments received during the comment period will be considered

Information Gathering Process (continued)

- Visit county, regional, and State government environmental and resource regulators
- Visit information service agencies
- Verify environmental permits and requirements for continuing operations
- Discuss consequences during renewal term with regulating agencies

What Do We Look At?

- Generic Environmental Impact Statement for License Renewal (GEIS, NUREG-1437)
  - ▷ Identified 92 issues of potential consequence
    - 68 issues resolved generically (Category 1)
    - 24 issues looked at on plant-specific basis (Category 2 or unassigned)
- Staff also looks for any significant new information not identified in GEIS

Areas Reviewed

- Surface water quality, hydrology, & use
- Aquatic ecology
- Ground-water use & quality
- Threatened or endagered species
- Air quality
- Land use
- Uranium fuel cycle & waste management

19

Areas Reviewed
(continued)

- Human health
- Socioeconomics
- Postulated accidents
- Decommissioning
- Environmental justice
- Alternatives to license renewal

20

Issues Not Considered In Environmental Review

- Need for power
- Cost of power
- Spent fuel disposal (except for transportation)
- Safety-related issues

21

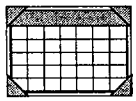
Public Comments

- Comment period ends on May 9, 2000
  - 60 day comment period
- All comments received during the comment period will be considered
- Comments not bearing on decision to renew license will be referred to appropriate NRC programs.

22

ANO-1 License Renewal Environmental Review Milestones

- Application received - 1/31/00
- Notice of Intent - 3/10/00
- Scoping Meeting - 4/4/00
- Comment period - 3/10/00 - 5/9/00
- Draft EIS issued - 12/00
- Final EIS issued - 7/01



23

Point of Contact

- Agency point of contact:

  Thomas J. Kenyon
  1 (800) 368-5642

- Documents located at Pendergraft Library at Arkansas Tech University, and can be viewed at NRC's Web site (www.nrc.gov)
- Provide comments: by mail, in person, or e-mail at anoeis@nrc.gov

24