



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 1, 2000

APPLICANT: Entergy Operations Inc.

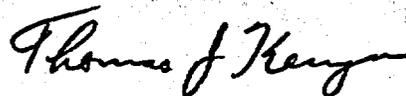
FACILITY: Arkansas Nuclear One Unit 1

SUBJECT: SUMMARY OF PUBLIC MEETING TO DISCUSS THE ENVIRONMENTAL
SCOPING PROCESS FOR ARKANSAS NUCLEAR ONE UNIT 1 LICENSE
RENEWAL APPLICATION

On Tuesday, April 4, 2000, members of the Nuclear Regulatory Commission (NRC) staff held public environmental scoping meetings in Russellville, Arkansas, in support of the staff's review of the Arkansas Nuclear One Unit 1 (ANO-1) license renewal application. Two sessions were held to allow maximum public participation. Formal presentations were made by Cynthia Carpenter, Robert Prato, and Thomas Kenyon of the NRC staff. Attachments 1 and 2 are the transcripts (with a copy of the slides) recorded at both meetings. Attachment 3 is a list of attendees for both the 1:30 pm and 7:00 pm sessions.

The purpose of the meetings was to provide the public an opportunity to participate in the environmental scoping process by providing comments on any issues the public thought the NRC staff should consider while preparing a plant-specific supplement to NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Power Plants," for ANO-1. The staff presentations outlined the overall license renewal process; provided a description of the National Environmental Policy Act (NEPA) review process; discussed the environmental requirements outlined in 10 CFR Part 51; and addressed how these requirements would be implemented during the ANO-1 license renewal review.

After the formal presentations given by the NRC staff, officials from Entergy Operations, Inc. were given the opportunity to address the audience and provide brief presentations focusing on the environmental report that was submitted as part of the license renewal application. Next, members of the public were invited to provide comments. Approximately 37 people attended the two sessions with 1 person making comments. Attendees included representatives of the NRC, Entergy Operations Inc., the nuclear industry, State agencies, the press, and members of the public.



Thomas J. Kenyon, Senior Project Manager
Generic Issues, Environmental, Financial, and
Rulemaking Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket No. 50-313

Attachments: As stated

cc w/o atts 1&2: See next page

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FACILITY: Arkansas Nuclear One Unit 1

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/RA/

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OFFICE	RGEB	SC:RGEB	C:RGEB	C:CGrimes
NAME	TKenyon:sw	BZaldman	CCarpenter	RLSB
DATE	4/25/00	4/27/00	4/28/00	5/1/00

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

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

ATTACHMENT 1

1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION

4 ***

5 PUBLIC MEETING - ENVIRONMENTAL REVIEW
6 FOR THE ARKANSAS NUCLEAR ONE, UNIT 1
7 LICENSE RENEWAL APPLICATION

8
9
10 Holiday Inn Russellville
11 Route 7 and I-40
12 Russellville, Arkansas

13
14 Tuesday, April 4, 2000

15
16 The above-entitled meeting commenced, pursuant to
17 notice, at 1:30 p.m.

18
19 PANEL MEMBERS:

20 FRANCIS X. CAMERON, Facilitator

21 THOMAS KENYON

22 BOB PRATO

23 CYNTHIA CARPENTER
24
25

P R O C E E D I N G S

1
2 MR. CAMERON: Good afternoon and welcome to the
3 Nuclear Regulatory Commission's public meeting on the
4 development of the environmental impact statement for the
5 license renewal application for Arkansas Nuclear One.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

21 Cindi?

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

25 My name is Cindi Carpenter and I am the branch

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

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

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

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

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

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

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

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

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

1 presentation today and then ask any questions.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3 The initial report will identify open items and
4 confirmatory matters related to the safety review under Part
5 54 that must be resolved before the commission can complete
6 its decision on a renewed license. That report will be
7 available to the public.

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

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

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

1 be accessible to the public.

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

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

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

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

1 actions they conclude are appropriate for the ANO renewal
2 application.

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

9 If you are interested in learning more about the
10 new inspection and oversight processes, there is information
11 available on the NRC web again, and in NUREG -1649, Revision
12 1, which is available in the public document room. The
13 normal regulatory process and the amendments to the existing
14 license will be continued in parallel with the renewed
15 application review and address matters of interest such as
16 operating events, spent fuel storage, security, and
17 emergency planning.

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

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

22 Anybody out there with a question?

23 [No response.]

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

1 information is available to the public on how --

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

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

10 Tom?

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

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

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

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

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

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

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

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

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

11 Now, early on in establishing the license renewal
12 process back in the '80s and '90s, the staff recognized that
13 the original environmental impact statements that were
14 written for plants when they first received their licenses
15 20 or more years ago would need to be updated to address
16 these additional 20 years of operation. So the NRC
17 undertook a rulemaking effort to modify Part 51 and to amend
18 it to address the environmental impacts of license renewal.

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

1 that gives us guidance on how to perform out reviews.

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

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

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

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

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

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

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

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

25 Once we feel we have enough information to

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 considered small at all plants, the staff concluded that
2 this item can be addressed as a generic basis as a Category
3 1 item.

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

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

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

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

25 And finally, the review process is designed to

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

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

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

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

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

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

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

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

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

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

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

17 Chip?

18 MR. CAMERON: Thanks a lot, Tom.

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

1 [No response.]

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

7 Craig?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

13 Garry?

14 MR. YOUNG: Thanks, Craig.

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

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

1 purpose of this program is to monitor, maintain, and
2 safeguard the environment around Arkansas Nuclear One's
3 generating facilities. The initial environmental review for
4 Arkansas Nuclear One Unit 1 was completed in the early
5 1970s. The review laid the foundation for the continuous
6 monitoring that we do today at the site.

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

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

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

1 we will continue to maintain the same water quality.

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

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

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

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

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

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

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

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

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

8 We also looked at how we will be using our land
9 over the additional operating time. License renewal will
10 not require additional land usage and our activities will
11 remain within the existing site boundaries. Based on these
12 evaluations, we have determined that the renewal of the Unit
13 1 license will not impact historic, archaeological, or land
14 resources in the community.

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

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

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

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

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

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

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

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

22 Thank you, Garry.

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

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

5 One additional thing I'd like to mention today
6 before we turn this back over, this week we are celebrating
7 25 years of operation for Unit 1, 20 years of operation for
8 Unit 2. We're going to have a celebration for our
9 employees, but also I'd like to invite folks that live in
10 the area to come tour the plant facilities on Sunday, and
11 the tour times will be essentially on 20-minute intervals
12 between 11 a.m. and 3 p.m.

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

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

24 Thank you.

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

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

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

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

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

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

25 We're here today to discuss the environmental

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3 MR. CAMERON: Thank you very much, Angie.

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

10 [No response.]

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

16 Thank you very much.

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

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REPORTER'S CERTIFICATE

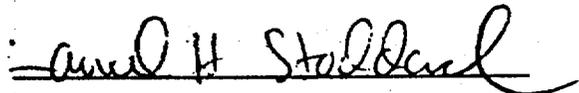
This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

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.



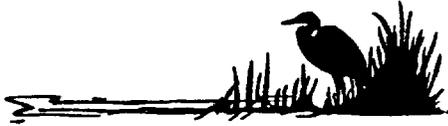
Laurel H. Stoddard

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



2

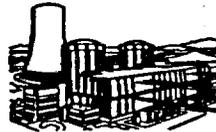
Arkansas Nuclear One Unit 1 (ANO-1) License Renewal

- ▶ 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

3

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



4

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

5

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

6

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

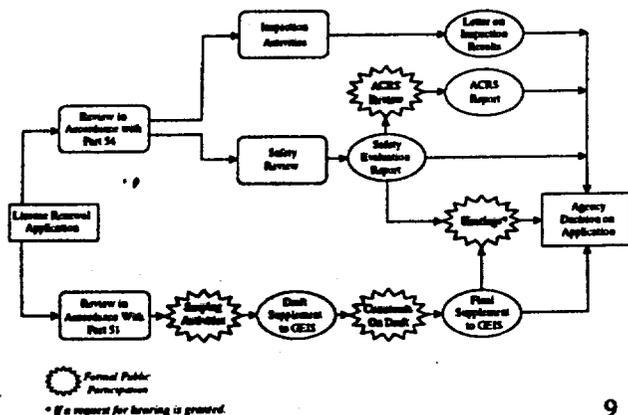
Renewal of an operating license

“... 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 License 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.

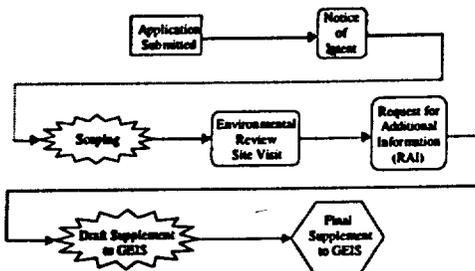
11

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



Formal Public Participation

13

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

14

NEPA Process (continued)

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

15

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

16

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

17

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

18

Areas Reviewed

- ▶ Surface water quality, hydrology, & use
- ▶ Aquatic ecology
- ▶ Ground-water use & quality
- ▶ Threatened or endangered 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

1 UNITED STATES OF AMERICA
2 NUCLEAR REGULATORY COMMISSION
3

4 ***

5 PUBLIC MEETING - ENVIRONMENTAL REVIEW
6 FOR THE ARKANSAS NUCLEAR ONE, UNIT 1
7 LICENSE RENEWAL APPLICATION
8

9
10 Holiday Inn Russellville
11 Route 7 and I-40
12 Russellville, Arkansas
13

14 Tuesday, April 4, 2000
15

16 The above-entitled meeting commenced, pursuant to
17 notice, at 7:00 p.m.
18

19 PANEL MEMBERS:

20 FRANCIS X. CAMERON, Facilitator

21 THOMAS KENYON

22 BOB PRATO

23 CYNTHIA CARPENTER
24
25

ANN RILEY & ASSOCIATES, LTD.
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P R O C E E D I N G S

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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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

15 Thanks.

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

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

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

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

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

20 The Atomic Energy Act and NRC regulations limit
21 commercial power reactor licenses to 40 years, but it also
22 permits the renewal of those licenses for periods of up to
23 20 years.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

22 The initial report will identify open items and
23 confirmatory matters related to the safety review under Part
24 54 that must be resolved before the commission can complete
25 its decision for a renewed license. That report will be

1 available to the public.

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

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

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

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

1 renewal.

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

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

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

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

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

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

13 [No response.]

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

16 [No response.]

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

21 Tom?

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

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

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

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

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

1 environmental impacts of operation for the additional 20
2 years.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1 the regulations.

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

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

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

25 Now, if some new and significant information is

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

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

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

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

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

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

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

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

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

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

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

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

21 MR. CAMERON: Thank you very much, Tom.

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

1 environmental impact statement?

2 [No response.]

3 MR. CAMERON: Okay. Well, thank you.

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

10 Craig?

11 MR. ANDERSON: Thank you, Chip.

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

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

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

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

4 Arkansas Nuclear One is a two-unit nuclear station
5 located in Western Pope County, about five miles west of
6 Russellville near the city of London. The two units have a
7 combined generation capacity of approximately 1,700
8 megawatts, and the units are generally the same with each
9 having a pressurized water reactor system, yet they are
10 dissimilar in that both of the reactor systems and turbine
11 generator systems were designed by different vendors. Unit
12 1 and Unit 2 have separate operating licenses. Renewal of
13 the Unit 2 operating license is also planned ^{after} the license
14 renewal process ^{is} complete for Unit 1.

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

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

1 continued operation of both units well beyond their initial
2 40 years through their dedication to the highest maintenance
3 standards and a commitment to safety. This is especially
4 evident over the last ten years, where ANO has evolved into
5 one of the most efficient nuclear stations in the industry.

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

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

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

1 opportunities for the public to have comment.

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

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

10 MR. YOUNG: Thanks, Craig.

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

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

1 1970s. The review laid the foundation for the continuous
2 monitoring that we do today at the site.

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

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

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

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

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

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

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

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

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

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

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

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

25 However, none of these areas are close enough to

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

4 We also looked at how we will be using our land
5 over the additional operating time. License renewal will
6 not require additional land usage and our activities will
7 remain within the existing site boundaries. Based on these
8 evaluations, we have determined that the renewal of the Unit
9 1 license will not impact historic, archaeological, or land
10 resources in the community.

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

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

25 I, along with many other Entergy employees, live

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

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

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

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

16 MR. ANDERSON: Thank you, Garry.

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

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

1 provide tours, take you through and look at a little bit
2 about the operation of the facility, including some
3 simulator demonstrations. If anyone is interested in making
4 reservations for the tour, the phone number to call is
5 858-4545, or e-mail us at anotour@entergy.com, and I'd
6 encourage everyone to come out Sunday. I think you'll learn
7 something about the facility and hopefully have a good time.

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

15 Thank you.

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

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

20 Angie?

21 MS. HOWARD: Thank you, Chip.

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

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

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

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

25 All along, as has been explained before, the

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

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

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

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

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

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

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

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

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

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

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

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

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

3
4 So I think you've got a good thing going here.
5 Many people don't realize that nuclear is the largest source
6 of emission-free electricity in America, and it's obvious
7 that it's important from the standpoint of ANO in your
8 community. ANO's two units also provide stable jobs, a
9 strong tax base, and reliable electricity, so I commend
10 Entergy and its leadership and the nuclear professionals at
11 ANO for leading the industry, and also for the NRC for
12 conducting a fair and effective review of the environmental
13 consequences of license renewal.

14 Thank you.

15 MR. CAMERON: Thank you, Angie.

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

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

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

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

7 [No response.]

8 MR. CAMERON: Any of the NRC staff?

9 [No response.]

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

14 Thank you.

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

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REPORTER'S CERTIFICATE

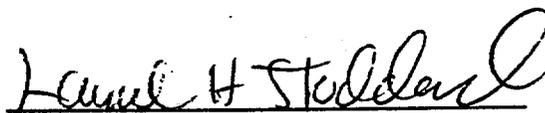
This is to certify that the attached proceedings before the United States Nuclear Regulatory Commission in the matter of:

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.



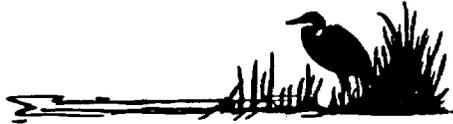
Laurel H. Stoddard

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



2

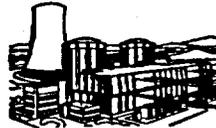
Arkansas Nuclear One Unit 1 (ANO-1) License Renewal

- ▶ 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

3

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



4

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

5

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

6

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

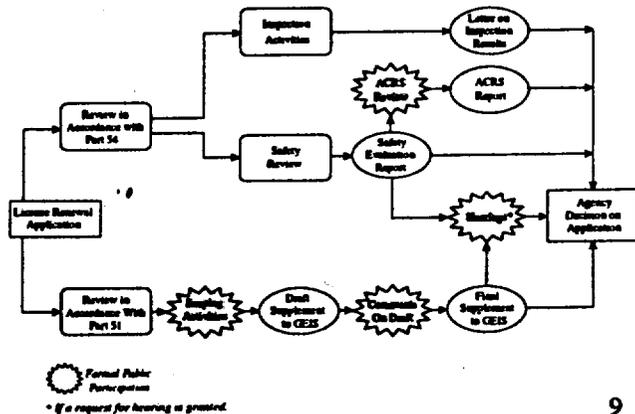
Renewal of an operating license

"... 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 License 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.

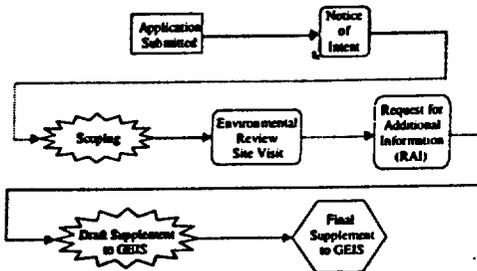
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How We Implement NEPA

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

12

Environmental License Renewal Process



13

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

14

NEPA Process (continued)

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

15

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

16

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

17

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

18

Areas Reviewed

- ▶ Surface water quality, hydrology, & use
- ▶ Aquatic ecology
- ▶ Ground-water use & quality
- ▶ Threatened or endangered 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

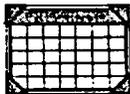
Public Comments

- ▶ 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

LIST OF ATTENDEES
ANO PUBLIC ENVIRONMENTAL SCOPING MEETING
April 4, 2000

NAME	AFFILIATION
Cynthia Carpenter	NRC/RGEB/DRIP
Thomas Kenyon	NRC/RGEB/DRIP
Barry Zalzman	NRC/RGEB/DRIP
Kim Leigh	NRC/RGEB/DRIP
Sue Wiens	NRC/RGEB/DRIP
Jancie Moore	NRC/OGC
Chip Cameron	NRC/OGC
Russ Bywater	NRC/SRI/ANO
Kriss Kennedy	NRC/RIV
Alan Cox	Entergy Operations
Phil Fisher	Entergy Operations
Jim Vandergilt	Entergy Operations
Garry G. Young	Entergy Operations
Reza Ahrable	Entergy Operations
Dennis Calloway	Entergy Operations
Dallas Eggemeyer	Entergy Operations
Nick Eggemeyer	Entergy Operations
Jager-Smith	Entergy Operations
Natalie Mosher	Entergy Operations
Rick Buckley	Entergy Operations
Dave Snellings	Arkansas Department of Health
Bernard Bevill	Arkansas Department of Health
Tom McChesney	Arkansas Department of Health
Chris Meyer	Arkansas Department of Health
Lee McCulloch	Arkansas Public Service Commission
Karen Fricke	Arkansas Public Service Commission
Keith Inman	Russellville Courier
Jason Anthes	Russellville Courier
Tom Kamerling	KCJC Radio Station
Grant Merrill	KARV Radio Station
Kate Sullivan	KATV Station
Rick Kimble	Southern Company
Bob West	FTN Associates, Ltd.
Jon Cudworth	Tetra Tech NUS, Inc.
Marty Ray	Tetra Tech NUS, Inc.
Angie Howard	Nuclear Energy Institute
Judith Stewart-Abernathy	Troop 21 Boy Scouts of America

Arkansas Nuclear One

cc:

**Executive Vice President
& Chief Operating Officer
Entergy Operations, Inc.
P. O. Box 31995
Jackson, Mississippi 39286-1995**

**David D. Snellings, Jr., Director
Division of Radiation Control and
Emergency Management
Arkansas Department of Health
4815 West Markham, Mail Slot #30
Little Rock, Arkansas 72205-3867**

**Winston & Strawn
1400 L Street, N.W.
Washington, DC 20005-3502**

**Manager, Rockville Nuclear Licensing
Framatone Technologies
1700 Rockville Pike, Suite 525
Rockville, Maryland 20852**

**Senior, Resident Inspector
U.S. Nuclear Regulatory Commission
P. O. Box 310
London, Arkansas 72847**

**Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064**

**County Judge of Pope County
Pope County Courthouse
Russellville, Arkansas 72801**

**Vice President, Operations Support
Entergy Operations, Inc.
P. O. Box 31995
Jackson, Mississippi 39286-1995**

**Wise, Carter, Child & Caraway
P. O. Box 651
Jackson, Mississippi 39205**

**Mr. Douglas J. Walters
Nuclear Energy Institute
Ste 400
1776 I St., NW
Washington, DC 20006-3708**

**Mr. Garry Young
Entergy Operations, Inc.
Arkansas Nuclear One
1448 SR 333 GSB-2E
Russellville, Arkansas 72802**

**Russellville Resident Office
U.S. Army Corp of Engineers
PO Box 1087
Russellville, Arkansas 72811**

**Mr. Harold K. Grimmett, Director
Arkansas Natural Heritage Commission
1500 Tower Building
323 Center Street
Little Rock, Arkansas 72201**

**Mr. Craig Uyeda
Arkansas Game and Fish Commission
2 Natural Resources Drive
Little Rock, Arkansas 72205**

**Ms. Cathryn B. Slater, SHPO
Arkansas Historic Preservation Program
323 Center Street, Suite 1500
Little Rock, Arkansas 72201**

**George McCluskey, Senior Archeologist
Arkansas State Historic Preservation Office
323 Center Street, Suite 1500
Little Rock, Arkansas 72201**

**Mr Randall Mathis, Director
Arkansas Department of Environmental
Quality
PO Box 8913
Little Rock, Arkansas 72219-8913**

Arkansas Nuclear One

cc:

**Executive Vice President
& Chief Operating Officer
Entergy Operations, Inc.
P. O. Box 31995
Jackson, Mississippi 39286-1995**

**David D. Snellings, Jr., Director
Division of Radiation Control and
Emergency Management
Arkansas Department of Health
4815 West Markham, Mail Slot #30
Little Rock, Arkansas 72205-3867**

**Winston & Strawn
1400 L Street, N.W.
Washington, DC 20005-3502**

**Manager, Rockville Nuclear Licensing
Framatone Technologies
1700 Rockville Pike, Suite 525
Rockville, Maryland 20852**

**Senior, Resident Inspector
U.S. Nuclear Regulatory Commission
P. O. Box 310
London, Arkansas 72847**

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U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064**

**County Judge of Pope County
Pope County Courthouse
Russellville, Arkansas 72801**

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Entergy Operations, Inc.
P. O. Box 31995
Jackson, Mississippi 39286-1995**

**Wise, Carter, Child & Caraway
P. O. Box 651
Jackson, Mississippi 39205**

**Mr. Douglas J. Walters
Nuclear Energy Institute
Ste 400
1776 1 St., NW
Washington, DC 20006-3708**

**Mr. Garry Young
Entergy Operations, Inc.
Arkansas Nuclear One
1448 SR 333 GSB-2E
Russellville, Arkansas 72802**

**Russellville Resident Office
U.S. Army Corp of Engineers
PO Box 1087
Russellville, Arkansas 72811**

**Mr. Harold K. Grimmer, Director
Arkansas Natural Heritage Commission
1500 Tower Building
323 Center Street
Little Rock, Arkansas 72201**

**Mr. Craig Uyeda
Arkansas Game and Fish Commission
2 Natural Resources Drive
Little Rock, Arkansas 72205**

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Arkansas Historic Preservation Program
323 Center Street, Suite 1500
Little Rock, Arkansas 72201**

**George McCluskey, Senior Archeologist
Arkansas State Historic Preservation Office
323 Center Street, Suite 1500
Little Rock, Arkansas 72201**

**Mr Randall Mathis, Director
Arkansas Department of Environmental
Quality
PO Box 8913
Little Rock, Arkansas 72219-8913**

Garry G. Young
Entergy Operations, Inc.
2306 W. 7th St.
Russellville, Arkansas 72801

Rick Buckley
Entergy Operations, Inc.
PO Box 31995
Jackson, Mississippi 39286

Jager Smith
Entergy Operations, Inc.
PO Box 651
Jackson, Mississippi 39205

Bernard Bevill
Arkansas Department of Health
4815 West Markham Street
Little Rock, Arkansas 72205

Chris Meyer
Arkansas Department of Health
P. O. Box 1749
Russellville, Arkansas 72811

Marty Ray
Tetra Tech NUS, Inc.
900 Trailridge Road
Aiken, South Carolina 29803

Dennis Calloway
Entergy Operations, Inc.
1448 SR 333
Russellville, Arkansas 72801

Karen Fricke
Arkansas Public Service Commission
1000 Center
Little Rock, Arkansas 72203

Nick Eggemeyer
Entergy Operations, Inc.
106 Skyridge Road
Russellville, Arkansas 72801

Grant Merrill
KARV Radio
201 West Second Street
Russellville, Arkansas 72801

Kate Sullivan
KATV
Main Street
Little Rock, Arkansas 72211

Judith Stewart-Abernathy
Troop 221 Boy Scouts of American
Rt 3 Box 1344
Dardanelle, Arkansas 72834

Angie Howard
Nuclear Energy Institute
1776 I Street, NW
Suite 400
Washington, DC 20006-3708

U.S. Nuclear Regulatory Commission
Region RIV
ATTN: Kriss Kennedy
611 Ryan Plaza Drive
Suite 400
Arlington, Texas 76011-8064

Lee McColloch
Arkansas Public Service Commission
1000 Center
Little Rock, Arkansas 72203

Dallas Eggemeyer
Entergy Operations, Inc.
106 Skyridge Road
Russellville, Arkansas 72801

Tom McChesney
Arkansas Department of Health
P.O. Box 1749
Russellville, Arkansas 72811

Reza Ahrable
Entergy Operations, Inc.
703 E. Elm
Russellville, Arkansas 72802

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