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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

EDWIN I. HATCH
NUCLEAR PLANT SUPPLEMENTAL
ENVIRONMENTAL IMPACT STATEMENT FOR
LICENSE RENEWAL

PUBLIC MEETING

Southeastern Technical Institute (STI)
Tattnall Auditorium
3001 East First Street
Vidalia, Georgia 30474

Tuesday, December 12, 2000

1:30 p.m.

BEFORE:

CHIP CAMERON, Special Agent

ANN RILEY & ASSOCIATES, LTD.
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Washington, D.C. 20036
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P R O C E E D I N G S

(1:30 p.m.)

MR. CAMERON: We are going to get started now.

Thank you all for being here with us today. I'd like to welcome you to the NRC's Public Meeting on the Draft Supplemental Environmental Impact Statement that has been prepared on the application to renew the licenses at the Hatch Plant, Units 1 and 2.

My name is Chip Cameron. I am the Special Counsel for Public Liaison in the Office of General Counsel at the Nuclear Regulatory Commission, and I am pleased to serve as your facilitator and moderator tonight.

I just wanted to cover three issues with you briefly before we get into the substance of the discussion today. One, I'd like to talk about what the objectives are for today's meeting. Secondly, I'd like to talk a little bit about format and ground rules. Third, I'd like to just go over the agenda briefly with you so you know what to expect today.

In terms of objectives for today's meeting, the NRC wants to provide you with information on the contents of the Draft Environmental Impact Statement and on the status of the license renewal application for Hatch, Units 1 and 2. Secondly, the NRC wants to hear from you in terms of any comments that you might have on the Draft Environmental

1 Impact Statement -- any concerns that you might have. Did
2 we look at the right information in preparing the Draft
3 Environmental Impact Statement? Are there other
4 alternatives or impacts that the NRC should be looking at?
5 The ultimate objective is to use the information that you
6 provide us with today, in preparing the Final Environmental
7 Impact Statement. You will hear from the NRC staff on how
8 the Environmental Impact Statement -- what part it plays in
9 making decisions on the license renewal application.

10 The NRC is taking written comments on the Draft
11 Environmental Impact Statement, but we wanted to be with you
12 today in person to talk about it. Information you hear
13 today may help you to prepare written comments if you want
14 to do that. You will also be able to see what others in the
15 community feel about the information in the Draft
16 Environmental Impact Statement.

17 I would emphasize though, even though you can file
18 written comments and we hope that you do, any comments that
19 you make today will carry the same weight as any of the
20 comments that are submitted to us in writing.

21 In terms of format we'd like to, if we can, have
22 as much discussion and interaction with you today as
23 possible. You'll see from looking at the agenda that it is
24 divided into a number of topics and those topics are started
25 by an NRC presentation to give you some background on that

1 topic. We will then go out to you for questions and
2 comments on that particular topic and I hope that this is a
3 good format for you in terms of interaction.

4 There are several people who want to make a more
5 formal statement on these issues, and we're going to do that
6 at the end of the meeting. There is no time limit, but I
7 would suggest that we hold those formal comments down to 10
8 minutes. I would just urge all of you to try to be as
9 concise as possible in your questions and comments today
10 because we just want to make sure that everybody gets a
11 chance to speak, and if you will try to be to the point,
12 that will make sure that we have that opportunity.

13 If you did want to talk, if you want to ask a
14 question, or make a comment, just signal me and I will bring
15 you this talking stick, or you can use these microphones
16 that are out here in the aisles. For the more formal
17 statements please feel free to come up to the podium and
18 make those statements. Just state your name and affiliation
19 if appropriate.

20 We are taking a transcript and our stenographer is
21 right here. The transcript of today's meeting will be
22 available relatively soon after the meeting for people to
23 look at. It will be available on the NRC web site, which
24 we've written down here, and that also may help you if
25 you're planning on submitting written comments.

1 One final point is that we realize that there may
2 be a lot of issues; broader issues than just the
3 Environmental Impact Statement on Units 1 and 2 at Hatch
4 Plant, issues about nuclear power in general, or other plant
5 issues. We're always glad to listen to people -- listen to
6 what they have to say on these issues of concern to them,
7 but our primary focus tonight is to discuss the Draft
8 Environmental Impact Statement. So we want to keep on that
9 topic, but to the extent that we have time, we will try to
10 address or listen to other comments.

11 Now what I'd like to do is introduce the speakers
12 and use the agenda to do that. After I'm done, and that
13 will be very shortly, we're going to turn to Cynthia
14 Carpenter, to give you a brief welcome and discussion on the
15 meeting overview and purpose. Cindy is the Branch Chief of
16 the Generic Issues, Environmental, Financial, and Rulemaking
17 Branch within the Office of Nuclear Reactor Regulation at
18 the NRC.

19 Cindy's staff is responsible for preparing and
20 overseeing the preparation of the Environmental Impact
21 Statements for all plants, including Hatch, that are
22 undergoing license renewal. She will be giving you a
23 welcome in just a minute.

24 After Cynthia, we're going to go to William
25 "Butch" Burton. This is Butch right here. Butch is the

1 Senior Project Manager on what we call the safety side of
2 license renewal. He's in the License Renewal and
3 Standardization Branch that is also within the Office of
4 Nuclear Reactor Regulation. That branch takes the
5 Environmental Impact Statement information from Cindy's
6 branch, they integrate that with their evaluation of the
7 safety issues in regard to license renewal. Butch will be
8 telling you about those safety issues.

9 They also integrate inspection findings from the
10 NRC inspectors looking at the plant, and that forms the
11 basis for making a decision on the license renewal
12 application. We will give you a chance to ask questions and
13 talk about that safety side after Butch is done with his
14 presentation.

15 We're then going to focus in on the NEPA process
16 -- the National Environmental Policy Act process, which
17 involves the preparation of the Environmental Impact
18 Statement. To lead that discussion, we're going to go to
19 Andy Kugler, right here.

20 Andy is the Senior Project Manager on the
21 environmental side for Hatch. He is in Cindy's branch.
22 Butch is the Safety Project Manager on the Hatch license
23 renewal. Andy is going to tell you about the Environmental
24 Impact Statement process.

25 Next we're going to go to the heart of the

1 discussion which is, what are some of the findings in the
2 Environmental Impact Statement with regard to the license
3 renewal at the Hatch Plant. We're going to ask Mary Ann
4 Parkhurst, who is right here. Mary Ann is a Staff
5 Scientist at Pacific Northwest National Lab, who along with
6 her team, has helped the NRC prepare this Draft
7 Environmental Impact Statement. She will be talking about
8 specifics. We will take a break during her presentation to
9 go out and ask you for questions and comments. Then we will
10 also do that at the end of her presentation.

11 Our final presenter is Mike Snodderly, who is a
12 Reactor Engineer at the NRC. Mike is in something called
13 the Probabilistic Safety Assessment Branch, which is within
14 the Office of Nuclear Reactor Regulation. He is going to
15 talk about one specific part of the Environmental Impact
16 Statement process. This is what are called SAMAs, which are
17 Severe Accident Mitigation Alternatives. Mike is going to
18 talk about that, and we will go to you for questions after
19 that.

20 Andy is going to come back and talk about what the
21 preliminary conclusions are in the Draft Environmental
22 Impact Statement, and then we'll go to the people who want
23 to make some formal statement.

24 With that, I would just turn it over to Cindy.

25 MS. CARPENTER: Good afternoon, and thank you very

1 much for coming this afternoon.

2 As Chip said, my name is Cindy Carpenter. I am
3 the Branch Chief of the Generic Issues, Environmental,
4 Financial, and Rulemaking Branch, and we do have ultimate
5 responsibility for the Environmental Impact Statement for
6 this Federal action. Slide 2, please.

7 We're here today to talk about the preliminary
8 results of the environmental review that the NRC has
9 undertaken as a result of the Southern Nuclear Operating
10 Company's application to renew its operating licenses for
11 the Hatch Nuclear Plant, Units 1 and 2.

12 We'll talk a little bit about the statutory
13 requirements for this action, the purpose of the review, the
14 processes that we go through, the preliminary results, and
15 then also the schedule the staff is working toward.
16 More importantly, we'll provide you with an opportunity to
17 give us any input on the preliminary results on anything
18 that you hear today, or to ask any questions on anything
19 that you've heard today. Slide 3, please.

20 To provide you with some background, the operating
21 licenses for Hatch, Units 1 and 2, will currently expire in
22 2014 for Unit 1, and 2018 for Unit 2. As we will discuss a
23 little bit later on, the Atomic Energy Act allows that a
24 licensee, such as Southern Nuclear, can renew a license for
25 up to 20 years.

1 Part of the license renewal process requires the
2 Nuclear Regulatory Commission to systematically consider the
3 environmental impacts during its decision-making process on
4 this matter. Slide 4, please.

5 Southern Nuclear submitted its license renewal
6 application for Hatch, Units 1 and 2, in February of 2000.
7 We visited the site and held a Public Scoping Meeting here
8 in May to identify any issues that may need to be addressed
9 during our review. On November 3, 2000, the NRC issued a
10 Draft Supplemental Environmental Impact Statement that
11 describes the results of our review.

12 We are currently in the middle of the comment
13 period for this document, during which time we are asking
14 for comments from members of the public on anything that is
15 in the document. These comments may help the staff evaluate
16 the acceptability of the environmental aspects of the Hatch
17 license renewal. That brings us to why we are here today.
18 Slide 5.

19 The purpose of today's meeting is to describe the
20 environmental review process to you, to discuss the results
21 of our review, we'll provide you with our review schedule,
22 and we'll accept any comments that you may have today and
23 also explain to you how you can submit comments in writing
24 to us until the end of the comment period. Slide 6, please.

25 Before we begin to explain the license renewal

1 process, I'm going to lay a little bit of a foundation for
2 you in general terms of what the Nuclear Regulatory
3 Commission does.

4 The Nuclear Regulatory Commission's authority is
5 derived from the Atomic Energy Act of 1954, also the Energy
6 Reorganization Act of 1974, as well as amendments to those
7 acts, and other legislation that involves security and waste
8 and energy policies. The NRC's regulations are issued under
9 Title 10 of the United States Code of Federal Regulations.
10 We typically refer to that as 10 CFR. Slide 7, please.

11 Based on this legislation, the Nuclear Regulatory
12 Commission's mission is to regulate the nation's civilian
13 use of nuclear materials to ensure the adequate protection
14 of the public health and safety, to promote the common
15 defense and security, and to protect the environment.

16 Additional requirements for the evaluation of
17 environmental impacts are provided in the National
18 Environmental Policy Act, which is many times referred to as
19 NEPA.

20 For commercial nuclear power reactors, the
21 NRC's regulatory functions include licensing. A
22 nuclear power plant license is based upon a set of
23 established regulatory requirements to ensure that the
24 design and the proposed operation are safe based upon
25 radiological safety standards. The NRC conducts routine

1 inspections to ensure that the plant design and operation
2 conform to these license requirements. Enforcement actions
3 are taken in the event that license conditions are not met.

4 That is a background, and as Chip said, Butch
5 Burton, the NRC's License Renewal Senior Safety Project
6 Manager for the Hatch Plant, will describe the license
7 renewal process for you. Butch --

8 MR. BURTON: Thank you, Cindy. As Chip and Cindy
9 mentioned, my name is Butch Burton, and I serve as the
10 Project Manager for the safety review for the Hatch license
11 renewal application. May I have Slide 9, please?

12 The Atomic Energy Act and NRC regulations limit
13 commercial power reactor licenses to 40 years, but also
14 permit the renewal of such licenses for up to an additional
15 20-year period. The 40-year term was originally selected on
16 the basis of economic and anti-trust considerations, not
17 technical limitations. Once the license term was
18 established, the design of several system and structural
19 components were engineered on the basis of an expected
20 40-year service life.

21 The safety requirements for the initial 40-year
22 license are contained in 10 CFR Part 50. When the first
23 reactors were constructed, major components were expected to
24 last at least 40 years. Operating experience has
25 demonstrated that this expectation was unrealistic for some

1 major plant components, such as steam generators in a
2 pressurized water reactor.

3 However, research conducted since 1982 and plant
4 operating experience have demonstrated that there are no
5 technical limitations to plant life, since major components
6 and structures can be replaced or refurbished. Thus, the
7 plant life is determined primarily by economic factors. Can
8 I have Slide 10, please?

9 As a result, the NRC established regulatory
10 requirements in 10 CFR Part 54, to provide for license
11 renewal. The rule, which was initially issued in 1991, and
12 amended in 1995, provides that the basis on which a plant
13 was originally licensed remains valid after 40 years and can
14 be carried over into a 20-year period of extended operation.
15 The rule requires that an applicant demonstrate that
16 applicable aging effects will be adequately managed for a
17 defined scope of passive, long-lived systems, structures,
18 and components. The Commission determined that aging for
19 active components is adequately managed by existing
20 maintenance and surveillance programs, and other aspects of
21 the existing license requirements can continue through the
22 license-extension period. The rule also requires that
23 certain time-dependent design analyses be identified and
24 evaluated.

25 A new license can be granted upon a finding by the

1 Commission that actions have been, or will be taken so that
2 there is a reasonable assurance that the applicable aging
3 effects will be adequately managed for the period of
4 extended operation, and that environmental impacts of
5 license renewal are not so great that preserving the option
6 of license renewal for energy-planning decision makers would
7 be unreasonable. May I have Slide 11?

8 The United States currently receives about 20
9 percent of its electricity from 103 operating nuclear power
10 plants. The electricity sector is moving rapidly to a
11 deregulated market in which energy supply choices will be
12 dictated by cost to the consumer. At the same time, there
13 are growing pressures to limit fossil-fuel emissions because
14 of continuing concerns for cleaner air and potential global
15 climate changes.

16 Deregulation and competition have raised the
17 interest in license renewal to strategic importance, because
18 large generating plants become vital economic assets to the
19 plant owners. Operating nuclear plants are expected to
20 remain competitive after retail electricity restructuring
21 provided that the cost associated with operating the plant
22 safely in the future can be reasonably projected.

23 Some currently operating U.S. plants will not
24 apply for license renewal for economic reasons. The NRC
25 established the license renewal requirements so that any

1 plant that is financially and materially capable of
2 operating safely beyond the current term of the license,
3 should have that opportunity and should clearly understand
4 the requirements for such extended operation.

5 Calvert Cliffs in Maryland was the first plant to
6 apply for license renewal. Their application was submitted
7 in April of 1998, and a renewed license was granted in March
8 of this year. The renewal application for Plant Hatch was
9 submitted by letter dated February 29 of this year.

10 Although the licenses for the units at Plant Hatch
11 do not expire until 2014 for Unit 1 and 2018 for Unit 2,
12 many utilities are interested in license renewal today to
13 ensure that they clearly understand what requirements will
14 be necessary for an extended license for future financial
15 planning. May I have Slide 12?

16 The licensing process consists of parallel safety
17 and environmental reviews which will be documented in a
18 Safety Evaluation Report for the aging management aspects of
19 the renewal application, and a supplement to the Generic
20 Environmental Impact Statement for the environmental impact
21 review. The aging management findings in the NRC staff's
22 safety evaluation will be verified by NRC inspections.

23 The renewal application and safety evaluation will
24 also be reviewed by the NRC's Advisory Committee on Reactor
25 Safeguards in accordance with the usual practices for

1 issuance of a license. The NRC plans to complete a Safety
2 Evaluation Report for the Plant Hatch renewal application,
3 which will address the scope of passive systems, structures
4 and components, the applicable aging effects, and the aging
5 management programs that Southern Nuclear will rely on to
6 ensure that the plant is safely maintained for the period of
7 extended operation. The initial report will identify any
8 open items and confirmatory matters related to the safety
9 review under Part 54 that must be resolved before the
10 Commission can make its decision on a renewed license. That
11 report will be available to the public.

12 The NRC's licensing process includes a formal
13 process for public involvement through hearings conducted by
14 a panel of administrative law judges, who are called the
15 Atomic Safety and Licensing Board. That process consists of
16 a petition to hold hearings on particular issues to be
17 litigated by the Board. There were no petitions submitted
18 for the Plant Hatch renewal application, so there is no
19 hearing planned.

20 Despite the absence of a formal hearing,
21 interested members of the public who are concerned about
22 nuclear safety issues can raise those issues informally
23 during the various public meetings that the NRC will hold
24 with Southern Nuclear to discuss the safety aspects of the
25 proposed extended plant operation. Time is usually provided

1 at the conclusion of each meeting for public comments and
2 questions.

3 Meetings on particular technical issues are
4 usually held at the NRC Headquarters in Rockville, Maryland.
5 However, some technical meetings and meetings to summarize
6 the results of the NRC's inspection findings will be held
7 near the plant site in a place that is accessible to the
8 public.

9 The Plant Hatch renewal application, Safety
10 Evaluation Report, meeting summaries, and other related
11 correspondence are, or will be available for public review
12 at the NRC's Public Document Room in Rockville, or at the
13 NRC's Electronic Public Document Room at the web site,
14 www.nrc.gov.

15 Many of these materials can also be found on the
16 NRC's web site under "Reactors" and "License Renewal." Paper
17 copies of the application, reports, and significant
18 correspondence are available to local residents at the
19 Apppling County Library, 242 E. Parker Street in Baxley.

20 The Advisory Committee on Reactor Safeguards,
21 otherwise known as the ACRS, performs an independent review
22 of the renewal application and the safety evaluation, and
23 they report their findings and recommendations directly to
24 the Commission. They also hold public meetings which are
25 transcribed. Oral and written statements can be provided

1 during the ACRS meetings in accordance with the instructions
2 described in the notice of their meetings in the Federal
3 Register.

4 At the end of the process, the Final Safety
5 Evaluation Report, the Final Supplement to the Environmental
6 Impact Statement, the results of the inspections, and the
7 ACRS recommendation are submitted to the Commission with the
8 staff recommendation. Those documents and any formal
9 Commission meeting to discuss the staff's recommendation are
10 also accessible to the public. Each Commissioner will vote
11 on the proposed action, and their decision is formally sent
12 to the NRC staff for whatever action they conclude is
13 appropriate for the renewal application. The individual
14 Commissioner votes and their instructions to the NRC staff
15 are also public records.

16 Throughout the NRC's review of the license renewal
17 application, the NRC continues to conduct regular
18 inspections and considers amendments to the current license.
19 The NRC's inspections and plant performance reviews are
20 evolving with the NRC's initiatives to improve the reactor
21 oversight process.

22 If you are interested in learning more about the
23 new inspection and oversight process, there is information
24 available on the NRC's web page and in the brochures outside
25 the meeting room. The normal regulatory process and

1 amendments to the existing license will continue in parallel
2 with the renewal application, and address matters of
3 interest such as operational events, spent-fuel storage,
4 security, and emergency plans.

5 This concludes my part of the presentation. I'll
6 turn it back over to Chip.

7 MR. CAMERON: Okay. Thank you very much, Butch.
8 Are there questions that anybody might have about the
9 overall process that Butch described, particularly the
10 safety evaluation that the NRC staff is doing on license
11 renewal? Yes.

12 SARAH BARCZAK: Sarah Barczak. This is somewhat
13 related to what you are talking about, but after this
14 20-year license renewal extension is granted, is that the
15 last chance to renew it, or will they be able to reapply? I
16 was just curious.

17 MR. BURTON: I don't know whether the Atomic
18 Energy Act allows for additional extensions. I don't know
19 if anyone else here can answer that.

20 MS. CARPENTER: I was looking at Butch, because I
21 honestly don't know either. I'm not sure if there's an
22 exact length of time that they say, you know, right now it's
23 20 years they can extend the license, but I'm not sure that
24 there's a limit to that, to be honest with you. I'd have to
25 look it up and we'll have to get back with you on that, but

1 I'm not sure that they give an actual limit.

2 MR. CAMERON: Is the question can there be a
3 third, in other words, another renewal of the license
4 application? Barry, do you have some information on this
5 for Sarah?

6 MR. ZALCMAN: Sure. My name is Barry Zalcman,
7 also with the Nuclear Regulatory Commission. It's my
8 understanding that the renewed license becomes the new
9 operating license for the facility, and that new license
10 would have an expiration date, and that license could as
11 well, be renewed at some point in the future subject to the
12 same stringent standards recognized in the additional period
13 of operation. So the safety reviews, the same environmental
14 reviews, the same level of inspections would also be
15 conducted at that time.

16 MR. BURTON: All right. Yes, I did want to say,
17 because as I mentioned before, the technical aspects of
18 operating the plant is really not the limiting factor; it's
19 really the economic. So should there be allowances to
20 extend beyond that as Barry mentioned, we would look again
21 at the technical aspects and see if the applicant is able to
22 continue to operate the plant and meet its current licensing
23 basis into an extended period. We would look at that just
24 as we're looking at it now.

25 MS. CARPENTER: And the exact same would go for

1 environmental, if that would occur. We'd have to look at
2 the environmental aspects again for an additional period.

3 MR. CAMERON: Okay. Yes.

4 MS. GRES: My name is Dusty Gres. My question
5 to you is, what are the major differences between the safety
6 inspection that you do for the license renewal, as opposed
7 to the regular safety inspections you do for continued
8 operation?

9 MR. BURTON: Good question. The review that we
10 are performing for license renewal, as I mentioned before,
11 there have been -- the original license renewal rule was
12 promulgated in 1991, and it was amended in 1995. Part of
13 that amendment was somewhat of a narrowing of the focus of
14 the license renewal review. What we do for license renewal,
15 is we really focus on what we call "passive, long-lived
16 structures, systems, and components."

17 What we have found is that active systems, such as
18 valves and pumps and things like that, should they
19 experience some sort of degradation, the fact that they are
20 active, it is relatively easy to recognize and address that.
21 In fact, much of the work that we do, and much of the
22 procedures and processes we have set up lend themselves to
23 recognizing those things.

24 As part of the development of Part 54, we
25 recognized that there are some structures and components

1 that are not active and that are long-lived, and whose
2 age-related degradation can actually occur and it's not
3 easily recognized. So what we try to do in the staff
4 review, is to look at the application and see how the
5 applicant has identified that universe of structures and
6 components, and identify what aging effects those
7 structures, systems, and components are likely to
8 experience, and that they have programs in place to manage
9 that aging.

10 So to answer your question, the difference between
11 what we're looking at in license renewal versus what we look
12 at more regularly at the operating plant is a really, much
13 more focused review on those things that are long-lived and
14 passive. I hope that answers your question.

15 MR. CAMERON: Good. Any other questions on the
16 safety issues? Yes, Sarah.

17 MS. BARCZAK: Is there any time frame or an
18 estimate on when the ACRS reviews are likely to happen?

19 MR. BURTON: I can certainly give you the dates we
20 currently have. By the way, the review schedule is on the
21 NRC web site. So you can find this information if you go
22 there, but right now for the Safety Evaluation Report our
23 milestone is to have that out February 8. Following the
24 issuance of the SER, there will be a couple of ACRS
25 meetings. There will be an ACRS Subcommittee Meeting

1 currently scheduled for March 22. That may vary, depending
2 on the ACRS's schedule, but right now it's scheduled for
3 March 22. Then the ACRS Full Committee Meeting is scheduled
4 for April 5. Does that answer your question?

5 MR. CAMERON: Will the Safety Evaluation Report
6 and the ACRS Report be placed on the web, and/or in the
7 local library for people to look at?

8 MR. BURTON: Yes. Both will.

9 MR. CAMERON: In terms of those dates for the ACRS
10 meetings, they will also be on the web site and not only in
11 the Federal Register. Is that correct?

12 MR. BURTON: That's correct. In fact, it is
13 important that you watch the web site because sometimes the
14 ACRS dates change depending on what their schedule is, and
15 what they have to address. It has already changed once, so
16 I really would suggest that you watch the web site. Does
17 that answer your question? Okay.

18 MR. CAMERON: Okay, good. Thank you, Butch.

19 MR. BURTON: Sure.

20 MR. CAMERON: We're going to go to the
21 environmental side now and listen to Andy Kugler talk about
22 the National Environmental Policy Act process. Andy --

23 MR. KUGLER: Thank you, Chip. My name is Andy
24 Kugler, and I'm the Environmental Project Manager for the
25 Hatch license renewal. I work for Cindy Carpenter.

1 I intend to spend the next 20 minutes or so,
2 talking about how the process as required by the National
3 Environmental Policy Act, or what we call NEPA -- how it
4 operates and how we have incorporated it into our
5 regulations. Then more specifically I'll talk about how we
6 are implementing that process in our review of the Hatch
7 license renewal application.

8 NEPA was enacted in 1969, and it requires
9 Federal agencies to use a systematic approach to consider
10 the environmental aspects of major Federal actions. It is a
11 disclosure tool that involves the public. It involves a
12 process whereby information is gathered concerning the
13 environmental impacts of a proposed action, and then as part
14 of that process, we document our findings and invite public
15 participation to review the findings.

16 The NEPA process results in a number of different
17 types of documents. The most significant among these are
18 the Environmental Impact Statements, or EIS, which describe
19 the results of a rigorous and detailed review of the
20 environmental impacts of a proposed action that may
21 significantly affect the quality of the human environment.
22 The NRC has already determined that license renewal is a
23 major Federal action. Therefore, we are now going through
24 the NEPA process for the Hatch license renewal application,
25 and we have prepared the Draft Environmental Impact

1 Statement that describes the results of our review for the
2 operation for an additional 20 years. Slide 15, please.

3 This slide describes the objective for our
4 environmental review. Simply put, we are trying to
5 determine whether the environmental impacts are such that
6 the license renewal for Hatch is acceptable -- whether or
7 not there are environmental impacts that would impede that.

8 Whether the plants actually operate for the
9 additional 20 years for which they will be licensed will be
10 determined by others -- by Southern Nuclear, by the local
11 regulatory agencies in the State, but not really by the NRC.
12 We are just giving them -- if we grant this, we will be
13 granting them an extension of the license. Slide 16,
14 please.

15 Now to give you a little bit of history, I'd like
16 to describe how the staff incorporated the NEPA process into
17 our regulations and how we perform an environmental review.
18 The NRC's implementing regulations for carrying out the NEPA
19 process are contained in Part 51 of Title 10 of the Code of
20 Federal Regulations, what we refer to as 10 CFR Part 51.

21 This regulation outlines the contents of
22 Environmental Impact Statements and the process that the NRC
23 uses to implement NEPA. License renewal is just one action
24 that is covered under 10 CFR Part 51.

25 As the NRC began establishing the license renewal

1 process, we realized that the Environmental Impact
2 Statements that had been prepared when the plants were
3 originally licensed some 20 years ago, would have to be
4 revisited for the license renewal period. So the NRC
5 undertook a rulemaking to modify Part 51 to specifically
6 address the license renewal process.

7 As part of the rulemaking effort for Part 51, the
8 staff developed a Generic Environmental Impact Statement.
9 You'll frequently hear this referred to as the GEIS, or as
10 NUREG-1437. NUREG-1437 took a systematic look at the
11 thousands of hours of operating experience for nuclear power
12 plants to help us to identify potential environmental
13 impacts.

14 In addition, the staff developed an Environmental
15 Standard Review Plan which we use as guidance to perform our
16 environmental reviews. There are copies of 10 CFR Part 51,
17 of the GEIS, and of the Environmental Standard Review Plan
18 in the back in the lobby if you wish to look at them. These
19 documents are also available on our web site and through the
20 Government Printing Office. Slide 17, please.

21 This slide shows a little bit more detail of the
22 environmental review process that Butch mentioned earlier.
23 In graphically shows the process that I'm going to be
24 discussing over the next few minutes, so you may want to
25 refer back to it. In fact, what we're going to do -- Cindy

1 if you could go ahead -- we'll also have it up on the side
2 wall here so that you can look at that as I'm speaking about
3 the different parts of the process. Slide 18, please.

4 As far as the NEPA process is concerned, there are
5 certain steps that every Federal agency must go through when
6 they are preparing an Environmental Impact Statement for a
7 major Federal action.

8 The first step is the Notice of Intent. This lets
9 the public know that we are planning to develop an
10 Environmental Impact Statement, and it also invites comments
11 from the public on the scope of the review. For Hatch, the
12 Notice of Intent was published in the Federal Register in
13 April.

14 To prepare for the review, we assembled a team of
15 NRC engineers and scientists in the specific technical and
16 scientific specialties that we needed for this environmental
17 review. In addition, to supplement our expertise, we
18 engaged the services of the Pacific Northwest National
19 Laboratory to ensure that we had a well-rounded knowledge
20 base for the review. We put together a team of some 20
21 people for the review and some of those people are here this
22 afternoon to hear your comments and to answer questions.

23 The next step is the scoping process during which
24 we identify issues that we need to address in the
25 Environmental Impact Statement. As I mentioned, the request

1 for public comments on the scope of the review was published
2 in the Federal Register in April. In May, during that
3 comment period, we held two public meetings here to allow
4 the public to provide us with comments on the scope. We
5 also went to the Hatch site as a team to acquaint ourselves
6 with the area and to ask any questions of the licensee
7 concerning their application. Slide 19, please.

8 As the review progressed, the staff contacted
9 Federal, State, and local agencies to gather additional
10 information. We looked a number of issues including the
11 environmental impacts of the proposed action -- of license
12 renewal, alternatives to the proposed action and the
13 environmental impacts of those alternatives, and also
14 possible mitigation measures -- things that could be done to
15 reduce the environmental impacts of license renewal.

16 On November 3rd of this year, we issued the Draft
17 Environmental Impact Statement for public comment. This
18 document is Supplement 4 to the GEIS because we rely on some
19 of the findings in the GEIS to support some of the
20 conclusions in our Environmental Impact Statement. Now this
21 report is draft, not because it is incomplete, but because
22 we are at an intermediate stage in the review process. We
23 are now in the midst of the second comment period to allow
24 you and other members of the public to provide comments that
25 you may have on the report.

1 After we gather these comments and evaluate them,
2 we may decide to change portions of the EIS based on the
3 comments. At that point, the NRC will then issue the Final
4 Environmental Impact Statement. Slide 20, please.

5 Now that I've given you a general idea of the
6 overall process, I'd like to talk about what we did as part
7 of our review. The environmental review team looked at
8 Southern Nuclear's Environmental Report. We visited the
9 site and reviewed Southern Nuclear's evaluation process, and
10 we reviewed comments that we received during the scoping
11 process. All of the comments that we received during the
12 scoping period were considered.

13 For example, comments related to issues such as
14 alternatives and postulated accidents were reviewed as part
15 of our normal process. Other comments, like questions
16 related to off-site radiological monitoring led us to locate
17 and review information from other sources, in that
18 particular case the Georgia Department of Natural
19 Resources, and to include the results in our Draft
20 Environmental Impact Statement. Slide 21, please.

21 In addition, we contacted Federal, State, and
22 local officials, as well as local service agencies to gather
23 information on this area and on the plants. Slide 22,
24 please.

25 These next two slides give you an idea of the

1 types of things that we looked at during our review. There
2 were ecological issues, health issues -- Slide 23, please.

3 -- Socioeconomic issues, and alternatives among
4 others. Slide 24, please.

5 Finally, the regulations identify some issues that
6 the staff does not look at during its environmental review,
7 including the need for power, the cost of power, and
8 spent-fuel disposal. In addition, my environmental review
9 team does not review safety issues during its review of
10 environmental impacts. Those issues are addressed by Mr.
11 Burton's reviewers.

12 Mary Ann Parkhurst, the Task Leader for the
13 Pacific Northwest National Laboratory, will speak soon about
14 the results of their review covering most of the areas in
15 our Environmental Impact Statement. After her, Mike
16 Snodderly will talk about the results of our review,
17 specifically addressing postulated accidents.

18 Now I'd like to turn it back over to Chip.

19 MR. CAMERON: Thank you, Andy. As Andy mentioned,
20 we are going to hear about the specifics of the
21 environmental review from Mary Ann in a few minutes, but are
22 there questions that any of you have about the overall
23 Environmental Impact Statement process that Andy was talking
24 about? All right. Yes, Sarah?

25 MS. BARCZAK: During the process I was just

1 wondering would the Draft EIS that we all have to read
2 through -- why weren't the comments that were received from
3 everyone -- the correspondence included in those?

4 MR. KUGLER: They were reviewed and considered in
5 our development of the draft. We do not -- you mean,
6 specifically included in an appendix or somewhere?

7 MS. BARCZAK: Correct. There's an appendix that,
8 you know, shows something and et cetera, et cetera, but
9 following what their concerns were, is hard to do when
10 you're just looking at, you know, a letter that was received
11 from Georgians for Clean Energy.

12 MR. KUGLER: I understand what you're saying. The
13 way we have normally addressed this is we issue a summary of
14 the scoping process, and for Hatch this was issued on August
15 23rd of this year, which discusses the scoping process,
16 where the comments came in from, and then it lists the
17 comments and the resolution for those comments. We have
18 not, at least up until this point, included them in the EIS
19 itself. We do include the comments that come out of this
20 part of the process in an appendix to the EIS.

21 MS. BARCZAK: Is the August 23rd comment summary
22 available anywhere on the website? Well, you said that they
23 were pulled together and looked at?

24 MR. KUGLER: Right. We haven't put the Scoping
25 Summary on the web site. There is probably no reason we

1 couldn't do that. I understand what you're saying. In
2 other words, that's a piece of the process that would be
3 convenient to have in a handy location. We could certainly
4 consider --

5 MR. CAMERON: Can we put the Scoping Report on the
6 web site?

7 MR. KUGLER: I don't see any reason we couldn't.
8 I think the only concern we might get into would be, you
9 know, we don't want it to get cluttered to where it gets
10 hard to find things, but I don't see that as a particular
11 problem in this case, so we can certainly consider doing
12 that.

13 MR. CAMERON: Okay. The transcript from the
14 meetings is on the web site?

15 MR. KUGLER: The transcript from the meeting is
16 there. That would only have comments that occurred during
17 the meeting. It wouldn't have the written comments that
18 came separately, so to get the whole picture --

19 MR. CAMERON: I guess her only concern is the
20 written comments that were submitted?

21 MS. BARCZAK: Yes. Well, I actually didn't know
22 about any of the comments being available, but -- I'm sorry.
23 I wasn't aware of any of the comments being available,
24 whether they were orally presented during the meetings, or
25 written comments that were sent in. I would address both.

1 MR. KUGLER: Okay. I understand. Well, the
2 Scoping Summary does address both. So if it was available,
3 what it would do is, for the written comments it would refer
4 you to -- it would give you the date that the letter came in
5 and who it came from. So it would be possible through our
6 Public Document Room, if you wanted to look at the specific
7 document itself, you would be able to get to it from there.

8 MR. CAMERON: So there's three aspects of this.
9 One is the Scoping Report itself. Secondly, any written
10 comments that were submitted on scoping, and hopefully, it
11 should be fairly simple for someone to electronically
12 navigate through to look at those specific letters, but
13 that's one thing we should also consider, and as for the
14 transcript for the public meeting, do we put those on the
15 web as a matter of course?

16 MR. KUGLER: The transcripts we normally have.
17 The transcript from the Scoping Meeting for Hatch is on the
18 web site under the Hatch License Renewal.

19 MR. CAMERON: So look for those two other --

20 MR. KUGLER: Well, we'll have to see about the
21 letters. If we start getting into individual submittal
22 letters, that might start to get a little crowded, but what
23 I was speaking to was possibly putting the Scoping Summary,
24 which would provide you with the reference to individual
25 letters that had come in. Then if you wanted to look at the

1 individual letter you could go to the Public Document Room
2 to obtain those. It would give you enough information to be
3 able to get them.

4 MR. CAMERON: If we have some suggestion that we
5 can either off-line talk or on-line tell people how they get
6 into the Public Document Room to look for those letters, I
7 think that would also be helpful.

8 MR. KUGLER: We do have information in the back on
9 how to access the Public Document Room and Adams. There are
10 information sheets in the back.

11 MR. CAMERON: All right. One more question up
12 here. Deborah --

13 MS. SHEPPARD: Thank you. My name is Deborah
14 Sheppard, and this is a follow-up question to the one that
15 was just asked.

16 You said earlier that you took into consideration
17 the comments that were made publicly and in writing, and you
18 followed those up with additional research. Is there a
19 location where you can link the question and the concerns
20 with exactly what information you sought and what the
21 conclusion was?

22 MR. KUGLER: I don't believe we have anything that
23 provides that sort of a direct link between the two. In
24 some cases it might be fairly obvious. For instance, for
25 the radiological off-site monitoring question there is a

1 specific location where we discuss the report from the
2 Georgia Department of Natural Resources, and we talk about
3 radiological impacts, but other comments, it might not be
4 clear where in the report that any changes we made, or
5 anything we included show up in response to those comments,
6 other than the general section.

7 For instance, if a comment was on alternatives, it
8 would certainly be Chapter 8, but there's nothing that would
9 tell you specifically, you know, this piece in Section 8 is
10 where that comment was addressed.

11 MS. SHEPPARD: I guess, just as a point of public
12 information, I believe those of us who are attempting to
13 follow this process are in a very difficult situation to be
14 able to follow your thinking as you evaluate this. I would
15 like to suggest that when people come to a meeting such as
16 this one and make written comments, they are doing about all
17 they can do. We don't have huge staffs to follow this and
18 it makes it extremely difficult for us to really understand
19 whether you've addressed the comment and what your thinking
20 is. So if there's a way to -- I will just issue that as a
21 criticism of the process. Thank you.

22 MR. KUGLER: Okay. I understand what you're
23 saying. I guess, what I would say in terms of the way the
24 process moves forward, the draft is not completely written
25 at the time that we work through the comments. They do kind

1 of run in parallel, but we would probably have to go back
2 after the draft was completed if we were going to really
3 show a direct -- here's where the comment was made and
4 here's where it appeared. I'm not sure whether we can do
5 that readily, but I understand your concern.

6 MR. CAMERON: A few additional points that may
7 help on this, Andy. As I understand it, if someone wanted
8 to repeat a concern that they had at the time of the scoping
9 -- if they wanted to repeat that concern as a comment on the
10 Draft Environmental Impact Statement, then we would look at
11 that comment again.

12 MR. KUGLER: Certainly.

13 MR. CAMERON: In the Final Environmental Impact
14 Statement, in your response to Sarah, you said that there is
15 an appendix of the comments. Is there a link? Can people
16 see a link between those comment letters on the Draft
17 Environmental Impact Statement and changes that were made in
18 the Environmental Impact Statement? I'm just wondering if
19 there is a way to sort of correct this.

20 MR. KUGLER: I understand what you're saying. I
21 haven't written the appendix yet, so I'm not, you know,
22 that's a little hard to answer, but I think it would be my
23 goal to make it clear where we have made changes to the EIS.
24 I would like to make it clear where those changes occurred
25 in relation to the comments. That would be my goal.

1 MR. ZALCMAN: Let me offer this. This is Barry
2 Zalcman again from the staff. We have examples of a number
3 of these earlier Supplemental Environmental Impact
4 Statements in the back of the room. The important thing is
5 when we go from the draft to the final stage, we
6 de-aggregate all the comments and enumerate them by
7 category, and give you a direct map so you can see the
8 section of the report that is actually addressing a change
9 from the draft to the final. The question I think that
10 you're raising, deals with the scoping process. When we
11 went to the Scoping Summary Report is there a mechanism that
12 connects that report to the draft EIS? Is that the specific
13 question?

14 MS. SHEPPARD: That a regular person could access
15 in a reasonable amount of time.

16 MR. ZALCMAN: Let me just talk a moment about the
17 Scoping Summary Report that is available in the Public
18 Document Room -- the Electronic Public Document Room, as
19 well as the room that is accessible in Rockville, Maryland.

20 We also made a point of making sure that the
21 public also had it available at the Appling Public Library,
22 to make sure that locals had insight, so those that had a
23 desire to actively participate in the process could actually
24 see that.

25 The question of how do we build a bridge between

1 the scoping activities and the Environmental Impact
2 Statement is always a challenge for any of the Federal
3 agencies.

4 What we tried to do with the Scoping Summary
5 Report, recognizing that this is a unique process that is
6 different than if we were to license a nuclear power plant
7 from the start. From the start, everything is open for a
8 nuclear power plant license; everything is subject to a
9 normal review.

10 For license renewal, we have a Generic
11 Environmental Impact Statement that already addresses about
12 a hundred issues that we already believe to be within the
13 scope of license renewal. We have to deal with those along
14 the way. The issues that we're seeking public engagement on
15 during the scoping is, is there something beyond those
16 hundred, that you being proximate to the site, may be
17 aware of to help inform the Agency as we begin on these?

18 So, as Andy mentioned, there are number of issues
19 where the Agency was already going to look at that issue in
20 detail. So when you brought that issue to us, it was
21 already within the scope of the environmental review.

22 What we're trying to do is isolate those that are
23 unique -- that we have not looked at -- unique to the area
24 that we were not familiar with, to inform the Agency so we
25 can do a more detailed review.

1 We did have a number of issues that were of
2 interest to members of the public that we attempted to
3 bridge within at least the Table of Contents on the draft.
4 You have good organization on where these issues can be
5 found. That is our attempt at trying to deal with the
6 public engagement issue.

7 If you have a specific interest in a specific
8 issue area, at least the Table of Contents will isolate it
9 for you, to help you look narrowly to see the discussion
10 that we provided and the rest of the issues that were raised
11 under the scoping, but I will say that we will take the
12 comment that was raised, "Is there a better way to bridge
13 it?" -- We will consider whether or not we can do a better
14 job with that.

15 MR. CAMERON: Okay. Thanks, Barry. Deborah --

16 MS. SHEPPARD: I'd just like to say with all due
17 respect, to everybody within the NRC, whether you evaluate
18 the generic issues and the way all of those things are
19 handled, to a layperson, many of the unique biological and
20 overall environmental considerations to this particular
21 river system are not generic issues.

22 So, you know, I hear what you're saying about
23 reviewing the Table of Contents, but it is still extremely
24 difficult to see how specific work was done in this area to
25 address specific concerns to us. Thank you.

1 MR. CAMERON: Thank you, Deborah. I think Mary
2 Ann's presentation may be instructive on some of the
3 specifics on this.

4 Anybody else on the overall process, before we
5 move on? The NEPA process? Okay. Thanks, Andy.

6 Next we're going to go to Mary Ann Parkhurst, with
7 the Pacific Northwest National Lab, who led the
8 Environmental Review Team to assist the NRC in evaluating
9 the impacts. I'm just going to turn it over to Mary Ann.

10 Mary Ann, whenever you think it's appropriate to
11 take a break for questions during your presentation, we'll
12 do that, and then we'll do it at the end too. All right.

13 MS. PARKHURST: I'll have to remember what my
14 slides look like because I can't see behind me very easily.

15 As you know, my name is Mary Ann Parkhurst. I
16 work for Pacific Northwest National Laboratory, which is
17 operated by Battelle Memorial Institute, a nonprofit
18 organization.

19 I'd like to talk about the process we used for
20 evaluating the environmental issues and a little bit about
21 the specifics of what we came up with in our Draft EIS.

22 You know that we used the Generic Environmental
23 Impact Statement, what we call the GEIS, as the basis for
24 much of the work that was done here. The NRC worked with
25 the States, with the Council on Environmental Quality, with

1 the Environmental Protection Agency, and a number of other
2 groups to come up with this document, to develop it. They
3 held a series of public workshops to finalize the GEIS.

4 During that time, the NRC did its best to identify
5 the appropriate categories of environmental issues that
6 needed to be looked at in license renewal and came up with
7 92 separate issues. Now these issues are categorized into
8 two different levels. One is a Category 1 and one is a
9 Category 2. Let's go to the next slide here -- Slide 26,
10 please, and talk about the Category 1 issues.

11 The NRC wanted to distinguish between the those
12 issues that are specific to any particular plant, versus the
13 generic issues that are held in common by 103 or so,
14 operating nuclear plants in the country. Let's go to the
15 next slide, please.

16 As an example of a Category 1 issue, we're looking
17 at things like maybe off-site radiological consequences.
18 When developing the GEIS the staff looked to see if off-site
19 doses during the renewal period were likely to exceed
20 current levels associated with the normal operation of
21 plants today.

22 The historical records of doses to the public are
23 maintained by each plant. We reviewed these numbers and
24 concluded that doses to the public from the individual
25 plants are consistently below those allowed by regulations

1 and in fact, they are very well below those regulatory
2 constraints.

3 Therefore, the staff could see no reason for those
4 doses to increase during the proposed license renewal
5 period, provided that the plants continue to monitor their
6 facilities and that there were no reasons for any additional
7 doses that would put them out of compliance with their own
8 programs.

9 Because expected radiological impacts apply to all
10 plants then, this became a Category 1 issue, something that
11 we only -- we don't ignore this at any new plant -- we only
12 review it in terms of what's new and significant that would
13 make us want to change our conclusion from the issue that
14 we looked at four years ago when we wrote the GEIS. Let's
15 go back to the previous slide. Can we go backward one? I
16 guess not. Thank you. Okay.

17 Of the 92 issues that we looked at, 69 were
18 considered Category 1s. That's what we are showing there.
19 We have 23 issues that remained after pulling out the 69
20 Category 1s. So we've got 23 issues that are considered
21 Category 2 issues, or something we call non-categorized
22 issues; we have two issues there. We looked at each of
23 these in detail depending on what category it fell into.
24 Now let's go ahead to Slide 27.

25 With regard to Category 1 issues, the Evaluation

1 Team reviewed the Hatch Environmental Report and discussed
2 the information that SNC had presented in that application.
3 We sought your comments during the Public Scoping Meeting
4 and during the scoping period that followed it, and we
5 reviewed the environmental standards and regulations.

6 Now each Category 1 issue was evaluated to
7 determine whether or not there was any pertinent new and
8 significant information relative to that issue. If we
9 identified anything new and significant, we would have
10 performed further evaluation.

11 However, we did not identify any new and
12 significant information and, therefore, the staff relies on
13 the conclusions of the GEIS as supported by plant-specific
14 information. Let's go to the next slide, please -- 28.

15 There are 21 Category 2 issues. These are the
16 ones we put the main emphasis on in our evaluation. Of
17 these 21 issues, five of them are not applicable to the
18 Hatch Plant because they are related to plant design issues
19 that are not specific to Hatch. For example, several of
20 them relate to once-through cooling, whereas, Hatch uses
21 cooling towers in their closed-cycle cooling process.

22 There are four issues of that 21, that are related
23 to refurbishment. Refurbishment, when there is a major
24 effort to change out some, perhaps the steam generators when
25 we're talking about a PWR -- a pressurized water reactor --

1 maybe the recirculating pipes in a BWR, which this is.
2 Because Southern Nuclear has no plans for any major
3 refurbishment activities, these issues then are not relevant
4 to this analysis.

5 That leaves 12 issues that we looked at
6 specifically in the EIS in detail. Those are the ones that
7 again, we concentrated our effort on because we thought they
8 had the most opportunity for finding something new and
9 significant here.

10 There are two additional issues that were not
11 categorized by the GEIS, and these are environmental justice
12 and chronic exposure to electromagnetic fields.

13 Now environmental justice -- just what is it? It
14 refers to action that results in a disproportionately high
15 and adverse impact on low-income or minority populations.
16 This concept came about from concerns that certain unpopular
17 actions, perhaps like locating a waste dump, were being
18 diverted to areas with low-income or minority populations.
19 NRC voluntarily includes an evaluation of environmental
20 justice in the license renewal process.

21 The second issue is chronic exposure to electro-
22 magnetic fields. This comes from questions of whether power
23 transmission lines could have some health implications. The
24 potential for chronic effects is still under investigation.
25 The staff considers this issue non-applicable and continues

1 to follow the developments as this issue is resolved. Next
2 slide, please.

3 Now I'd like to go over the format of the
4 document. Many of you have probably already seen it and
5 have a feel for what's in it, but for those of you that
6 haven't, we start out with Chapter 1, which briefly
7 describes the NEPA process as Andy was mentioning here
8 earlier.

9 Then Chapter 2 describes the Hatch Plant and the
10 environment that surrounds it. These descriptions are
11 divided into various topics you'll see up here, including
12 land use, water use and water quality, air quality, aquatic
13 ecology, terrestrial resources, radiological impacts,
14 socioeconomic impacts -- socioeconomic are those that
15 affect the populations, which we'll talk about in a few
16 minutes -- and historic and archeological issues. Next
17 slide, please.

18 The environmental impacts of license renewal then
19 are discussed in Chapters 3 through 7. Chapter 3 is
20 designed to address the issues of refurbishment. Since they
21 don't have refurbishment planned for this facility, this
22 chapter then becomes a placeholder. It's a very short
23 chapter. It's the shortest one to read. Our next one is
24 Chapter 4 and that's much lengthier. We're addressing the
25 environmental impacts of operation during the license

1 renewal term specifically. It addresses both the Category 1
2 issues that are relevant to the plant, and the Category 2
3 plant-specific issues.

4 We looked at the impacts of the cooling system,
5 the impacts of the transmission lines, radiological impacts,
6 socioeconomic impacts, groundwater use and quality, and
7 threatened and endangered species. These were the main
8 areas that the document goes into. Slide 31.

9 Chapter 5 discusses the postulated plant accidents
10 and it includes a review of the SAMAs mentioned -- the
11 Severe Accident Mitigation Alternatives that Mike will
12 mention here shortly.

13 Chapter 6 examines the uranium fuel cycle and
14 solid waste management process. It addresses those impacts
15 to the environment from the uranium fuel cycle.

16 Chapter 7 looks at the impacts of decommissioning
17 a plant that has operated an additional 20 years.

18 Chapter 8 evaluates the alternatives to license
19 renewal, describing the major methods that could be used to
20 obtain the energy if the Hatch Plant license was not
21 approved -- the renewal was not approved.

22 Finally, Chapter 9 is a summary of our preliminary
23 conclusions. Chip, maybe this is a good time to stop and
24 ask for questions -- any questions about the document

1 structure?

2 MR. CAMERON: Okay. Thanks, Mary Ann. We have
3 the specific environmental impacts to deal with. Before we
4 get into that, are there any questions about the structure
5 of the document or how the NRC proceeded to put the Draft
6 Environmental Impact Statement together? That doesn't mean
7 that you can't come back and ask about that later, but --
8 Sarah?

9 MS. BARCZAK: The question that I have is, how far
10 ahead or in the future did the nuclear reactor for the plant
11 project what future refurbishment activities there would be?
12 All the way through 2034 and 2038, or do you know?

13 MS. PARKHURST: Through the license renewal period
14 they have to, you know, consider what they have to do
15 between now and license time just to keep their plant going,
16 and then there's the question of what additionally has to be
17 done to maintain the plant during that additional period --
18 the renewal term, and what then is required that would be
19 considered a major refurbishment.

20 MR. CAMERON: So does that mean that if there were
21 going to be any proposed refurbishment during the? --

22 MS. PARKHURST: They'd have to indicate it in
23 their application.

24 MR. CAMERON: They would have to indicate it?

25 Okay.

1 MS. PARKHURST: They have to have the operations
2 necessary to continue into that term. As part of the
3 license renewal term, they have to identify it now.

4 MR. CAMERON: Does that answer your question?

5 MS. BARCZAK: Yes.

6 MR. CAMERON: Okay. Deborah --

7 MS. SHEPPARD: Very simply, could you just refer
8 us to the page numbers for the generic issues?

9 MS. PARKHURST: The document is developed a little
10 differently than that. They're in there by -- well, okay.
11 You can look at 10 CFR 51, Subpart A, Table B-1. That will
12 give you the list of the 92 issues. It will identify which
13 are Category 1, which are Category 2. It identifies which
14 are applicable to all plants, which are specific to those,
15 like I said, with cooling towers versus those that are
16 required for once-through cooling, those that have cooling
17 ponds. So that's the best place to get that information.

18 In the document itself, especially in Chapter 3
19 which is on the refurbishment, and Chapter 4, and then 5, 6
20 and 7, there is a section in each part of it that talks
21 about which issues are Category 1 issues, and then there's a
22 separate table of which issues are Category 2 issues. So
23 they are spread out primarily in Chapter 4, also again the
24 SAMAs are in Chapter 5, the fuel cycle in 6, the
25 decommissioning in Chapter 7.

1 MS. SHEPPARD: Thank you. I was afraid I had
2 missed something when I was reviewing the report because I
3 was trying desperately to find some easy reference and I did
4 see the locations scattered throughout, but just as another
5 observation, if you are actually asking members of the
6 general public to review a document like this, if I can't
7 find it, you know, you're acting on maybe a very unrealistic
8 assumption of what people are capable of doing in reviewing
9 your work.

10 MS. PARKHURST: That's a good comment, thank you.
11 I think that we will make sure that we have that referenced.
12 Andy --

13 MR. KUGLER: I think I'd just like to say in
14 reference to this that there are probably different ways we
15 could structure it, and different people would like
16 different approaches. I think our reasoning was that most
17 people have certain issues they are concerned with and so as
18 you go into the Table of Contents, you look for that issue
19 in the Table of Contents. You go to that section and there
20 will be a table at the beginning of the section that lists
21 the Category 1 and 2 issues related to that issue. Then it
22 goes on to discuss them and how they, you know, address them
23 for the specific plant, depending on whether it's Category 1
24 or 2. So it's one logical way to do it. It could have been
25 done other ways, but we felt that this probably worked the

1 best. There is one other place that some issues appear and
2 that is in Appendix F. That's for the issues that are not
3 applicable to Hatch. It was the best construction we felt
4 we could come up with for that.

5 MR. CAMERON: If I understand Deborah's comment,
6 it would be a comment that would be applicable to the
7 organization of the Final Environmental Impact Statement
8 also, so that it would be something for us to consider along
9 with all the other factors that they've mentioned, Andy.

10 MR. KUGLER: Are you indicating basically that
11 your preference would have been to see it organized in such
12 a way that they were listed in the same way as in Part 51,
13 I'm not entirely clear on what you would have liked to have
14 seen.

15 MS. SHEPPARD: Perhaps including Part 51 as part
16 of the document with a reference to refer to that would be
17 useful. If you receive the document like this and believe
18 it's a whole and complete representation of the process and
19 you're trying to find lists that are referred to, you can't
20 find them. That's the problem. So maybe merging the two
21 documents would be a solution.

22 MR. KUGLER: Okay. I understand what you're
23 saying. Thank you.

24 MR. CAMERON: Thank you, Deborah. Any further?
25 There's a comment or question right here. Yes, sir.

1 MR. HOLLAND: On Slide 30 you mentioned something
2 about threatened and endangered species. You didn't give
3 any particular categories, so I'd like to talk about two in
4 particular.

5 The Short-nosed Sturgeon -- was there any
6 possibility that you had a problem there with the
7 Short-nose?

8 MS. PARKHURST: I've got a discussion coming up on
9 that exact issue.

10 MR. HOLLAND: You'll have a discussion on that?

11 MS. PARKHURST: Yes, sir.

12 MR. HOLLAND: How about -- there's another one
13 that appears to be heading toward the threatened or
14 endangered species list, which is the Robust Redhorse
15 Sucker. Has this particular animal showed up in that area?

16 MS. PARKHURST: What was that again, please? What
17 was that one?

18 MR. HOLLAND: It's called the Robust Redhorse
19 Sucker.

20 MS. PARKHURST: I don't recall that right off. I
21 have an aquatic ecologist who was supposed to be here today
22 who could answer that for you. Unfortunately, he was in
23 Detroit and unable to leave the airport. He's snowbound.

24 MR. HOLLAND: Well, that's something, you know,
25 I'm not asking you to address that point right this moment,

1 but at some point that question certainly needs an answer.

2 MS. PARKHURST: Thank you. We'll make sure that
3 we catch that in the transcript.

4 MR. CAMERON: Could you just tell us your name for
5 the record, please?

6 MR. HOLLAND: I'm James Holland, H-o-l-l-a-n-d.

7 MS. PARKHURST: Thank you very much.

8 MR. CAMERON: And Mr. Holland, we're going to come
9 back to the specifics on this and if you have further
10 questions or points you can offer them then, but we have
11 heard your two suggestions. Those will be considered as
12 comments also.

13 Let's go on to the -- let's get into the
14 specifics. That's a good segue. Mary Ann, do you want to
15 continue?

16 MS. PARKHURST: Okay. Let's go to the next slide,
17 please. We'll look at the highlights of the document. Next
18 slide, please.

19 The cooling system -- and again, we'll get into
20 the Sturgeon here -- the Hatch Plant uses a closed-loop
21 cooling system to absorb the heat through the reactor
22 condensers. This system has three mechanical draft towers
23 in each of its two units. You've got six cooling towers out
24 there which, to keep the water circulating in there, Hatch
25 withdraws water from the Altamaha River through a single

1 in-take structure, and returns it downstream through a
2 submerged discharge structure about 1,300 feet down-river
3 from the water in-take. The river itself is about 500 feet
4 wide, with a maximum depth of 30 feet near the plant.

5 One of the issues that we worry about with the
6 cooling system effects is entrainment and impingement of
7 fish and aquatic organisms on the screens and so on, in the
8 cooling system. This is less of a problem for plants that
9 have cooling towers than it is with those using once-through
10 cooling. So we handle it a little differently; more as a
11 Category 1 issue than a Category 2.

12 What we know here about the entrainment and
13 impingement at the Hatch facility is there has been quite a
14 study of this impingement. There was a 5-year study in
15 which impingement was extensively studied and the
16 fluctuation between the take -- the amount of fish, or often
17 mostly larvae that's collected on the screens, varies from
18 day to day and from year to year -- what they found is that
19 rates varied from 0.4 fish per day impinged on the screens,
20 and this ranged up to a 1.2 fish per day.

21 Now the Hogchoker, which is what that is
22 representing there, was the most abundant and the only
23 species collected consistently each year in this study on
24 the screens. Species affected by entrainment and
25 impingement -- the ones that were collected and so on -- are

1 not considered endangered. The impact to these populations
2 is considered small. I say small, and what I mean by small
3 is that the effects are either not detectable, or they are
4 too small to destabilize or noticeably alter important
5 attributes of the resource. That's the GEIS's definition of
6 small.

7 In a separate analysis we looked at threatened and
8 endangered species, which is a Category 2 issue. Aquatic
9 and terrestrial species were surveyed in a recent Field
10 Study and had been surveyed over the years, but in the
11 recent survey they not only looked at the Hatch site, but
12 all the transmission line corridors. They included things
13 like the freshwater mussel in this survey. That might be
14 another one that you're keeping an eye on.

15 As a part of SNC's evaluation of these
16 threatened and endangered species, they consulted with
17 agencies like the Georgia Department of Natural Resources,
18 the U.S. Fish and Wildlife Service, and the National Marine
19 Fisheries Service regarding the potential occurrence of
20 threatened and endangered species on the plant site or in
21 that vicinity.

22 One Federally-listed aquatic species known to be
23 in the area is the Short-nosed Sturgeon. Several
24 terrestrial species are also documented in the area.
25 However, SNC determined that its operation and maintenance

1 procedures would remain unchanged during the license renewal
2 period and did not threaten the existence of these listed
3 species.

4 The Georgia Department of Natural Resources and
5 the Fish and Wildlife Service concurred with the no-effect
6 -- in their official determination -- for the mussel
7 species. SNC has requested a no-effect determination from
8 the National Marine Fisheries Service on the Short-nosed
9 Sturgeon, based on a fairly extensive biological assessment.

10 While we wait on that reply, the NRC staff has
11 evaluated the potential impacts related to entrainment and
12 impingement of the Short-nosed Sturgeon at the Hatch in-take
13 structure and also the thermal effects. These are the two
14 things where you might expect to have some impacts, and it
15 has found no evidence that the Sturgeon would be adversely
16 impacted by the Hatch license renewal. The NRC then
17 provided this information to the National Marine Fisheries
18 Service. Okay, next slide, please.

19 Heat shock is unlikely to be an issue at Hatch,
20 again, with the cooling towers in place. This is different
21 from the once-through cooling where the heat is much more of
22 a potential issue. So here at Hatch, the impact of heat
23 shock on aquatic systems is small.

24 The last Category 2 issue related to cooling
25 systems is that of microbial organisms, specifically, the

1 thermophilic pathogens. These are the ones that love heat.
2 We looked at these to determine if there is an enhanced
3 presence of these organisms that could pose a risk to public
4 health during the renewal term. These pathogens require
5 elevated discharge temperatures for optimal growth and
6 development.

7 During the course of our analysis it was
8 determined that the cooling system discharge temperatures,
9 which are monitored weekly and reported to the Georgia
10 Department of Natural Resources, are consistently below
11 those that promote pathogen growth and survival.

12 Additionally, because wastewater is treated at the
13 plant, anything that the plant is discharging is treated
14 before it is discharged. There is a lack of a pathogen
15 source that you would commonly need in order to have this be
16 a problem. There is no untreated sewage for instance, going
17 into river from the facility as a result of its operations.

18 The staff therefore concludes that the potential
19 impacts of microbial organisms on human health, resulting
20 from the operation of the plants cooling water discharge to
21 the aquatic environment during the renewal term is small.
22 Slide 35, please.

23 The transmission system that distributes the
24 electricity generated by the Hatch Plant includes six
25 transmission lines with a total corridor length of 338

1 miles. The GEIS evaluation of environmental issues relevant
2 to transmission lines regarded issues such as the power line
3 right-of-way management, which consists largely of cutting
4 vegetation and herbicide application, bird collisions with
5 power lines, and electromagnetic fields on flora and fauna.
6 These are Category 1 issues. We found no new and
7 significant information with these transmission line
8 impacts.

9 There is one Category 2 issue related to
10 transmission lines, and that's the potential for electric
11 shock from electromagnetic fields. Plants applying for
12 license renewal must assess potential shock hazard if the
13 transmission lines that were constructed specifically to
14 connect the plant to the transmission system don't meet
15 the recommendations of the National Electrical Safety Code
16 criteria. At the time that these transmission lines were
17 constructed, they were designed to meet the safety code
18 guidance.

19 Newer requirements request that they calculate
20 induced current beneath the lines to a large vehicle shorted
21 to ground, and there is a limit that they have to meet on
22 this. The SNC evaluated this limit and determined that the
23 impact of the electromagnetic field effects as a result of
24 the limit was small. The numbers are well below the
25 constraints that are put on them.

1 One other issue regarding transmission lines is
2 the chronic effect of extremely low frequency
3 electromagnetic fields. I mentioned that a little bit
4 earlier. This issue is not categorized, and the NRC
5 considers this issue not applicable as there is no final
6 conclusion on it. NRC does continue to follow the
7 scientific developments related to this issue. Slide 36,
8 please.

9 The evaluation of radiological impacts addresses
10 exposure to the public and to occupational workers. As I
11 mentioned earlier, this is a Category 1 issue and there are
12 no Category 2 radiological issues related to license
13 renewal, nor was any new and significant information
14 identified during the course of this analysis. Because this
15 is an issue of considerable public interest, I want to
16 mention a few items that we did discover as part of our
17 evaluation.

18 SNC and its predecessor organizations have
19 conducted a Radiological Environmental Monitoring Program
20 around the Hatch Plant site since 1974. The radiological
21 exposures to the public and the environment have been
22 carefully monitored and compared with the appropriate
23 standards. This monitoring program is used to do a number
24 of things. One is to verify that radioactive materials and
25 ambient radiation levels attributable to plant operations

1 are within NRC Regulatory Limits and EPA Environmental
2 Radiation Standards. Secondly, to detect any measurable
3 buildup of long-lived radionuclides in the environment.
4 Third, to monitor and evaluate ambient radiation levels, and
5 fourth, to determine whether any statistically significant
6 increase occurs in a concentration of radionuclides in
7 important pathways.

8 Our review of the historical data on releases to
9 the environment showed that doses to the maximally-exposed
10 individual for each pathway in the vicinity of the plant,
11 were a small fraction of EPA's Environmental Limits.

12 In addition to SNC's Surveillance Program, the
13 Georgia Department of Natural Resources conducts a survey
14 around the site and to a distance of up to 90 miles, to
15 characterize radiation and radionuclides in air and
16 precipitation -- rainwater, I presume mostly here --
17 vegetation, soil, groundwater, the Altamaha River, river
18 sediment, and fish. They concluded that the measured
19 concentrations were well below levels of concern, and that
20 there are no measurable impacts on water, fish, or seafood
21 downstream of Plant Hatch. I presume by seafood, they mean
22 mostly shellfish.

23 The GEIS concluded that radiological impacts of a
24 license renewal are small. No increase is anticipated in
25 either public or occupational radiation dose during the

1 license renewal term. Slide 37, please.

2 The next area covered was socioeconomic issues.
3 There are a variety of these impacts that I'm going to
4 discuss. The first is housing impacts that might result if
5 SNC hired additional employees during the license renewal
6 period.

7 Plant Hatch is considered to be in a low
8 population area. The area does not have any housing growth
9 control measures. However, SNC has not identified any
10 increases in staff related to license renewal activities and
11 doesn't anticipate a change in housing needs as a result of
12 the Hatch Plant ongoing operations.

13 Additionally, we interviewed real estate
14 professionals in the area and concluded that the impacts on
15 housing during the license renewal period are small.

16 Impacts on public utilities were also considered,
17 both for plant demand and plant-related population growth.
18 The plant does not use municipal water supplies, nor is it
19 expected to indirectly alter off-site groundwater use.
20 Again, they anticipate no significant increase in plant
21 staff for the license renewal term. Therefore, SNC does not
22 expect plant demand to have an effect on water resources in
23 the water supply systems servicing towns surrounding the
24 plant. Next slide, please.

25 The off-site land use will not be affected since

1 there are no plant-related population-driven changes to land
2 use. We would like to point out however, that the continued
3 operation of the plant will provide a significant tax
4 revenue to Appling County, which directly taxes Hatch. This
5 amount currently represents 68 percent of Appling County
6 revenues. Toombs County also benefits from having a greater
7 percentage of the Hatch workforce living within its
8 boundaries.

9 Possible traffic congestion could happen in the
10 future as moderate population growth is anticipated.
11 However again, these are not expected to be related to
12 increases in the plant's employment. Next slide, please.

13 Historic and archeological resources appear to be
14 unaffected by the renewal of the license, since there are no
15 immediate plans for future land disturbance or structural
16 modifications beyond routine maintenance. There are no
17 known historic properties on site and there are none that
18 are eligible for listing. Next slide, please.

19 Finally, the last issue in the socioeconomics
20 arena is environmental justice. I think I mentioned
21 earlier, environmental justice refers to the Federal policy
22 in which Federal actions should not result in
23 disproportionately high and adverse impacts on low-income or
24 minority populations. The staff examined the geographic
25 distribution of minority and low-income populations within

1 50 miles of the plant as recorded during the 1990 census.
2 This evaluation was supplemented with inquiries to two
3 local planning departments and social service agencies in
4 Appling and Toombs counties.

5 It was found that in general, minority populations
6 are small and dispersed, located primarily in the
7 surrounding towns of Vidalia, Baxley, Douglas, and Waycross.
8 No environmental pathways such as subsistence agriculture,
9 hunting, or fishing were found that would result in
10 disproportionate adverse impacts on these populations from
11 license renewal activities.

12 Maybe a short break would be in order right about
13 now, Chip. Do you want to just see if we have any questions
14 at this point, and then I'll move on?

15 MR. CAMERON: Okay. Let me just ask, since you
16 did cover the specifics of threatened and endangered
17 species, let me ask Mr. Holland to give us the name of that
18 one fish again, okay?

19 MR. HOLLAND: Robust Redhorse Sucker. It's one of
20 many species of suckers, but this one has got problems.
21 There is a known population out of three or four counties
22 upstream. This guy here can probably offer a lot better
23 information than I can.

24 MR. SHAW: This is Doug Shaw. This is a species
25 that -- It's one that has avoided getting on the Federal

1 endangered list by agreement among several parties, but it
2 is a rare species nonetheless, and we were just curious
3 about that.

4 MS. PARKHURST: Thank you. I'm sorry, I don't
5 know the answer to that, but it is something that I will
6 make sure that we look at if we haven't already.

7 MR. CAMERON: Okay. Thank you. Other questions
8 on the areas that we've covered so far on specifics? Sarah
9 --

10 MS. BARCZAK: I had a question about the -- I was
11 going to drop this in my comments, but I'll ask it now while
12 you can answer it. On the heat effects that were looked at,
13 it looked like specifically in regard to the Sturgeon
14 population, although I'm sure it was looked at in other
15 ways, I know that the EPD, Environmental Protection
16 Division, does require river monitoring and quarterly
17 reporting of the temperature, the discharge temperature
18 maximum. There isn't from what I'm aware, what I've been
19 told by the EPD, a maximum discharge temperature required
20 within the permit for Hatch. The temperature listed in the
21 GEIS, the maximum temperature in the mixing box was listed
22 at 94 degrees Fahrenheit in the summer, and 54 degrees
23 Fahrenheit in the winter. I was wondering if the Nuclear
24 Regulatory Commission, though a permit required by the EPD
25 is not required, is going to look at that impact of having a

1 94 degree Fahrenheit maximum discharge temperature. Is that
2 going to be looked at? I know there's no permit requiring
3 that to be looked at, but --

4 MS. PARKHURST: At Hatch itself, or in the GEIS
5 process, in the generic process of evaluating these issues?
6 For Hatch Plant?

7 MS. BARCZAK: Can you say that again? I didn't
8 quite hear that.

9 MS. PARKHURST: Are you asking in terms of whether
10 NRC is looking at it for the Hatch Plant? The discharge
11 temperature?

12 MS. BARCZAK: Yes. For Hatch specifically.

13 MS. PARKHURST: Andy, do you want to field that
14 one? I think we've got the temperatures listed and I don't
15 know them right off the top of my head on what their
16 discharges are.

17 MR. CAMERON: Can I just ask, to make sure that we
18 all understand what the implications of Sarah's questions
19 are, and Sarah, correct me if I'm wrong on this. If the
20 Category 1 issue was bounded by a certain temperature and
21 the Hatch permit is possibly above that temperature, then
22 would that constitute significant new information that would
23 cause that Category 1 issue to be looked at as a Category 2
24 issue? Is that what you're asking?

25 MS. BARCZAK: Yes, and that in the water-use

1 section, where it refers to the Georgia EPD permit for
2 Hatch, the temperature monitoring and the quarterly date and
3 even monitoring being done, it doesn't -- that permit
4 doesn't address the maximum discharge temperature. So I'm
5 asking is it possible for the NRC to go above and beyond,
6 knowing that there isn't a discharge temperature issue
7 there, although the permit is not in place.

8 MR. CAMERON: Okay. Thank you, Sarah.

9 MR. KUGLER: Okay. Let me try to make sure I
10 understand it. I think what you're asking is that since the
11 permit does not limit the maximum temperature, is there
12 something that the NRC will do since a higher discharge
13 temperature could potentially affect the aquatic life, is
14 that? Okay.

15 MS. BARCZAK: The person I had spoken with at the
16 EPD said that for once-through plants, they generally have a
17 maximum discharge temperature of 90 degrees Fahrenheit.
18 Then he confirmed that there wasn't a maximum discharge
19 temperature for Hatch. Then knowing those two numbers, I
20 wondered if that's something that should be addressed.

21 MR. KUGLER: Okay. I think I understand the
22 question. I would probably have to speak to our aquatic
23 ecologist to get a full answer, but one point that I'll make
24 is that I believe the reason that there is a limit for the
25 once-through cooling plants, is that the volume of water

1 they are putting back into the river is much greater than
2 the volume of water that Hatch will be putting back into the
3 river. So the effect on river water temperature and on the
4 aquatic life in the river would be much greater. The amount
5 of water that Hatch is putting back into the river is a much
6 smaller percentage of the river flow, and so its effect on
7 the overall temperature in the river is much smaller. I
8 would, without absolutely knowing for sure, but I believe
9 that is probably why the Georgia Department of Natural
10 Resources did not impose a specific limit for them. We will
11 need to talk to our, you know, the specialist to gather more
12 information on that.

13 MR. CAMERON: That will be considered as a comment
14 to the Draft EIS to be addressed. Mr. Holland --

15 MR. HOLLAND: Just a comment. Just because the
16 permit does not address the issue of water temperature, I
17 don't think that excuses Plant Hatch from breaking the law
18 of the water quality issues. I've heard this before in
19 other areas, other than Plant Hatch, so I think you might
20 need to take another look at it.

21 MR. CAMERON: Okay. Thank you, Mr. Holland. Any
22 other questions right now before we move on? Okay. Go
23 ahead over there and then we'll come back down here.

24 MS. GRES: Dusty Gres. I do want to say that
25 while I don't represent a particular organization, I

1 live three miles west of the plant directly on the river.
2 So my concerns are primarily river quality.

3 I do want to know when you considered the heat
4 impact and when you did your environmental studies, did you
5 make specific considerations of the fact that right now the
6 temperature of the water has been abnormally high because of
7 drought conditions which have been predicted to continue for
8 a considerable period of time? We have noticed a
9 considerable temperature increase in the river itself, and
10 we want to know what impact you looked at in terms of the
11 additional temperature increase, on the fact that the river
12 itself is abnormally warm.

13 MS. PARKHURST: I really wish my aquatic ecologist
14 was here because he could answer these things just like
15 that. He's been through them.

16 MS. GRES: He would like the warm water issue too
17 I imagine.

18 MS. PARKHURST: I'm sure. First off again, heat
19 shock is not considered a problem for cooling tower plants.
20 What you are putting out there is usually, you know, in a
21 once-through cooling system you've got water coming in, it's
22 going through condensers, it's coming out hotter and it
23 doesn't recycle. Here we've got the recycling effect. I
24 don't know what the exact temperature of the discharge is,
25 but again, it's a Category 1 issue for good reason. One of

1 the things they do consider is the differences like you say,
2 from drought years and so on. It certainly is -- it is
3 something we look at the overall averages and kind of like
4 the lower and upper bounds. That's part of the standard
5 analysis here.

6 I think maybe we ought to go on because the next
7 thing we're looking at is water use and quality. We'll kind
8 of work right into this next one.

9 MR. CAMERON: Before we do, let me tap in right
10 here with -- is it Doug?

11 MR. SHAW: Thank you. Doug Shaw again. I've got
12 two quick questions, I think they're quick, about the
13 endangered species and the potential impact to fish. I'm
14 looking for clarification. I read that this is a Federal
15 review and a Federal action that you are looking at. Does
16 that mean you only look at Federally-endangered or
17 threatened species, or do you also look at State-tracked
18 species, those species that are tracked by the State
19 Natural Heritage Commission, or DNR.

20 MS. PARKHURST: I believe we look at the DNR
21 species. Yes.

22 MR. SHAW: The Natural Heritage Commission is part
23 of the DNR.

24 MS. PARKHURST: Yes. That's part of the analysis.

25 MR. SHAW: Just as a follow-up to Mr. Holland's

1 comment that Robust Redhorse Sucker and others, may be some
2 of those tracked species.

3 Secondly, what were the -- you said the
4 entrainment and impingement study was a 5-year study? Do
5 you know the years that was conducted in?

6 MS. PARKHURST: It is in the document. I think
7 that those are fairly early, and that there's additional
8 survey information that occurred more recently, but the
9 specific impingement study is a 5-year study, and Andy
10 will check into that. Again, it's in the document.

11 MR. CAMERON: We'll put that on the record too
12 when it's found. In the meantime, why don't you continue
13 Mary Ann, and then we'll come back out to you for questions
14 on Mary Ann's presentation before going on.

15 MS. PARKHURST: Okay. One of my problems with
16 this is that my slide numbers are so small I can't really
17 read them. Slide 41, please. I need better or more
18 magnification here.

19 Hatch obtains its cooling water from the Altamaha
20 River. The impact of consumptive water loss on the
21 downstream communities is associated with fluctuations in
22 the river surface elevations. Hatch's withdrawals during
23 average flow conditions reduces the river elevation about
24 0.4 inches. During low flow conditions, which perhaps this
25 is one of them, the withdrawals may be responsible for a

1 decrease of about 1 inch in elevation. Potential water use
2 conflicts due to consumptive losses of stream flow are
3 considered small. Next slide, please.

4 The plant's potable water supply is obtained from
5 three groundwater wells onsite. The plant does not use
6 municipal water supplies. The water quality and level of
7 the groundwater's aquifer is not significantly affected by
8 plant use. The water quality of plant discharges is
9 regulated by their National Pollutant Discharge Elimination
10 System permit, otherwise known as NPDES.

11 The State of Georgia retains the authority to
12 regulate water quality on water supply at Plant Hatch.
13 NRC's decision in this NEPA process does not override the
14 State's ability to regulate water quality or water supply
15 requirements for the facility. We consulted with the State
16 to ensure that the facility is currently in compliance with
17 water quality and water supply permits. The State has
18 responded that it is currently unaware of any expected
19 changes in the facility's permits.

20 However, compliance with environmental quality
21 standards and requirements is not a substitute for, nor does
22 it negate the requirements for NRC to weigh the
23 environmental consequences of the alternatives in this NEPA
24 process. Next slide, please.

25 The environmental issues associated with the

1 uranium fuel cycle and solid waste management are discussed
2 in the GEIS. There are no Category 2 issues associated with
3 this particular issue. No new and significant information
4 was identified during the Hatch license renewal review. The
5 GEIS has concluded that impacts from the uranium fuel cycle
6 on license renewal are small. Next slide, please.

7 Environmental issues associated with
8 decommissioning were discussed in the GEIS. Again, there
9 are no Category 2 issues related to this particular issue --
10 to decommissioning. No new and significant information was
11 identified during the Hatch license renewal review. The
12 GEIS has concluded that impacts from decommissioning on
13 license renewal again, are small. Slide 45, please.

14 Now to change the pace a little bit, I would like
15 to talk about the alternatives to license renewal. This
16 information is presented in the document in Chapter 8.
17 Review of alternatives is especially important to the NEPA
18 process. Because there are many possible energy sources and
19 mixes of energy sources, we have to limit the analysis and
20 we have done that, limiting it to those that have
21 demonstrated capability and sufficient generating capacity
22 to replace the Hatch Nuclear Plant.

23 The alternatives also include a no-action
24 alternative, which would simply mean that NRC would not
25 renew the operating licenses and SNC would decommission the

1 plants after operations ceased.

2 Two of the alternatives we did consider, that hold
3 the most promise for large-scale replacement of power, are
4 coal-fired power generation and gas-fired power generation.
5 We looked at the impacts of these alternatives and we
6 evaluated them using several options.

7 First off, we looked at locating one of these
8 plants on the Hatch site, making use of its existing cooling
9 water system. We also looked at the potential for closing
10 the Hatch site and building a new facility at a new and
11 different site, something we considered a greenfield site,
12 which means a natural site that is not otherwise disturbed,
13 perhaps currently forested.

14 We also evaluated the impacts of using the cooling
15 towers in this new site versus using once-through cooling,
16 either at a new site or at the existing Hatch site.

17 Now on this slide and on the next one, we can see
18 what some of the other alternatives are, including coal,
19 gas, and nuclear, and go on to look at imported power, wind
20 power, solar, hydro-power, geothermal, wood energy. If
21 we're not on Slide 47, let's go to 47 where we're looking at
22 municipal solid waste, biomass-derived fuel, oil, nuclear,
23 fuel cells, delayed retirement, which again, might be an
24 extension on your license renewal process, conservation, and
25 then a combination of these.

1 The alternatives aside from coal and gas-fired
2 plants are not evaluated in-depth here because they do not
3 have the capacity or the capability to replace the Hatch
4 Plant. Next slide, please.

5 The alternative actions, including the no-action
6 alternative, have environmental effects which reach moderate
7 or large significance, at least in some impact categories.
8 Let me go back and remind you what a small impact is. Small
9 means the effects are not detectible, or are too small to
10 destabilize or noticeably alter important attributes of the
11 resource.

12 A moderate impact is one that is sufficient to
13 alter noticeably, but not destabilize important attributes
14 of a resource.

15 A large impact has an effect that is clearly
16 noticeable and is sufficient to destabilize important
17 attributes of the resource.

18 Rather than going through the entire analysis of
19 how we looked at each of these different alternatives using
20 the same categories that we used with the license renewal
21 alternative, I want to just refer you to Chapter 8 of the
22 SEIS where you've got all of the listings of how we
23 evaluated each one, showing what we did with the main
24 ones, the gas-fired and coal-fired, at the Hatch Plant, at
25 a green field site, with cooling towers, which we call

1 closed-cycle cooling versus once-through cooling. So these
2 can all be found there.

3 I do want to kind of summarize that, for the most
4 part, the impacts on land use and ecology range from moderate
5 to large for coal-fired and gas-fired generation because of
6 the additional land that would be required for construction
7 and use of these facilities.

8 Depending on where the site is located, the
9 impacts on the water quality might increase to large,
10 especially if it's located in an area that would require
11 groundwater for cooling.

12 I want to point out that we did look at combining
13 alternatives, such as conservation, purchase power, and new
14 generation. It is conceivable that a certain mix of
15 alternatives might at some time in the future be capable of
16 cost-effective replacement energy. However, it is unlikely
17 that the environmental aspects of such a hypothetical mix
18 could be reduced to small in all categories. In comparison,
19 the impacts of renewing the Hatch licenses are small in each
20 of these categories. Slide 49, please.

21 Finally, to summarize our preliminary conclusions
22 from our environmental review. In contrast to the
23 conclusions that we reached for the alternative actions, the
24 preliminary conclusions for the proposed action of renewing
25 the licenses for Hatch Nuclear Plant are that the

1 environmental impacts of license renewal are small for all
2 impact categories.

3 We included the word "preliminary," because we are
4 planning to use additional information we receive during
5 this meeting and this evening's meeting, and the comments
6 that come in during the comment period, before issuing the
7 final report. That will allow us to make final conclusions
8 for the Final EIS document, which should be out later next
9 year.

10 MR. CAMERON: Okay. Thank you, Mary Ann. Let's
11 go for a final round of questions before we talk about
12 severe accidents. Sarah.

13 MS. BARCZAK: On page 6-7, under "Onsite spent
14 fuel", the Commission found: "The expected increase in the
15 volume of spent-fuel from an additional 20 years of
16 operation can be safely accommodated onsite with small
17 environmental impacts through dry or pool storage at all
18 plants if a permanent repository or monitored retrievable
19 storage is not available."

20 What does that really mean? Is it possible that
21 if a permanent repository or monitored retrievable storage
22 isn't available, that it's fine to continue operations at
23 Hatch with storing waste onsite? Does this mean that onsite
24 storage of highly radioactive waste at Hatch could
25 permanently remain on the cement storage slab outside as the

1 staff concluded further in that paragraph? How can
2 long-term environmental effects of dry cask storage at Hatch
3 be known at this time when the first three casks, casks that
4 have never been used before at any other nuclear plant, were
5 just loaded this summer? How is it possible to know that
6 the casks will not impact the environment 34 years from now?

7 MS. PARKHURST: This is an area that is outside
8 the scope of the license renewal. There is a specific
9 Environmental Impact Study or statement for evaluating that
10 area. This is again, outside our scope of study and I'm
11 wondering if there is?

12 MR. CAMERON: Andy.

13 MR. KUGLER: We do evaluate this one particular
14 issue within the scope, but I believe, Barry, I'm not sure
15 if you have further information. My read on that is that
16 it's not intended to be permanent, but I'd have to go back
17 and look to be certain about that. I think it's saying it's
18 okay to store it until the permanent repository is
19 available, but I would have to go back to confirm that.

20 MR. CAMERON: We're going to go to Cynthia on
21 that.

22 MS. SOCHOR: That particular clause has to do
23 with after a plant closes down. That does not have to do
24 with the current operation.

25 MR. KUGLER: But I think here question was, it's

1 not intended to be permanent, forever. The intent is still
2 that there would be another repository at some point.

3 MS. SOCHOR: Yes. That's true.

4 MR. KUGLER: Okay.

5 MR. CAMERON: Okay. Thanks, Cynthia. Deborah.

6 MS. SHEPPARD: I have this funny feeling that I'm
7 getting dumber and dumber as this meeting goes on. So
8 please forgive me if what I'm asking should be obvious and
9 I'm not getting it, but it says nuclear fuel is considered
10 in the rule.

11 MS. PARKHURST: The management, it's the waste
12 management end of it.

13 MS. SHEPPARD: So it is considered in the rule?

14 MS. PARKHURST: The GEIS looks at the fuel cycle
15 and identifies those areas that are relevant here as
16 Category 1 issues. Everything else is outside of the scope
17 of what we are asked to address, as far as the environmental
18 aspects of reviewing the applicant's Environmental Report
19 and writing an Environmental Impact Statement for license
20 renewal.

21 MS. SHEPPARD: Well, is onsite storage of nuclear
22 wastes in the these untested casks going on at other
23 facilities?

24 MS. PARKHURST: Untested?

25 MS. SHEPPARD: Well let's delete that word. Is

1 onsite storage of nuclear waste in casks occurring at other
2 facilities?

3 MS. PARKHURST: Yes.

4 MS. SHEPPARD: Then is this issue plant-specific
5 or generic?

6 MS. PARKHURST: This is a generic issue. Your
7 specific, but there is a specific and separate evaluation of
8 your onsite dry storage cask facility that's separate from
9 what we're evaluating here.

10 MS. SHEPPARD: I'm afraid your regulatory
11 procedures and comments must run opposite on this particular
12 issue because obviously, the nuclear fuel that is sitting at
13 that plant now is part of the fuel cycle, and your
14 observation that it's a small impact, or nonexistent impact
15 is -- I don't even know a word to use to describe it. It's
16 just an observation from the public.

17 MS. PARKHURST: Thank you.

18 MR. KUGLER: I want to try to take a crack at
19 clarifying this though, because I don't want to leave you
20 with the feeling that we're not trying to answer your
21 question.

22 I think what Mary Ann was saying is that when they
23 established an independent spent-fuel storage facility out
24 there, the dry cask storage facility, that was reviewed as a
25 separate issue to establish it, okay? It's licensed under

1 Part 72, as opposed to being licensed under Part 50. So
2 that action of establishing a storage facility is separate
3 from license renewal.

4 Under license renewal we do consider the
5 environmental impacts of onsite storage as part of the fuel
6 cycle. So we are considering that, and that's why the issue
7 is described and discussed in our Environmental Impact
8 Statement. So it is considered -- the piece, I guess, that
9 I would say is not considered is the storage of the fuel,
10 eventually in a permanent repository. That is not part of
11 our review.

12 MS. SHEPPARD: The impact of the storage onsite is
13 considered small?

14 MR. KUGLER: Yes. That's correct.

15 MS. SHEPPARD: How did you make that assessment?

16 MR. KUGLER: Well, that assessment was made in the
17 Generic Environmental Impact Statement in more detail. In
18 this Environmental Impact Statement what we did, because it
19 was a Category 1 issue, was look to see if there was any new
20 and significant information related to Hatch and its storage
21 of fuel. Since we did not find any, we accepted the
22 conclusions in the Generic Environmental Impact Statement
23 for Hatch.

24 MS. SHEPPARD: Did you evaluate such things as
25 hurricane conditions, flooding, tornadoes, weather-related

1 elements and those kinds of things?

2 MR. KUGLER: I would have to go back to the GEIS
3 to tell you exactly everything that was considered, but I'm
4 sure weather was an issue that they considered in evaluating
5 the design of the facility itself. The actual storage
6 facility has to be designed to deal with design-basis
7 conditions including weather at the site. That would also
8 include seismic and things of that nature.

9 MS. SHEPPARD: I have another question. How
10 exactly do you assess the cost for the storage of the spent
11 nuclear fuel onsite and the unknowns regarding the cost of
12 nuclear fuel storage?

13 MR. KUGLER: If you're talking about the cost to
14 the utility to store it?

15 MS. SHEPPARD: Yes. How do you assess that?

16 MR. KUGLER: We do not assess that.

17 MS. SHEPPARD: Then how do make a comparison about
18 the alternative sources of energy including conservation
19 that are sufficient? You appear to have under-evaluated
20 without having a mechanism to identify and evaluate the cost
21 of what you do. It appears from your presentation, that you
22 are not evaluating the full cost of continuing the Hatch
23 license and extending it.

24 MR. KUGLER: That issue would be evaluated by the
25 licensee. Really for us, the cost is not an issue. What we

1 are evaluating are the environmental impacts, and
2 determining whether the environmental impacts of license
3 renewal are significant, or what level they reach, what the
4 environmental impacts of the alternatives would be, and
5 making a call on whether the environmental impacts of the
6 alternatives are greater or lesser than the alternative of
7 license renewal.

8 In terms of the cost, that call really comes down
9 to the utility. If they find that it is more expensive to
10 run this plant than it would be to implement one of the
11 alternatives, then I would assume that they would pursue the
12 alternatives as being more cost-effective, but that is
13 really not an issue that we are concerned with.

14 It's sort of like a driver's license in a sense.
15 If we renew the license, we are giving them a license to
16 operate. They can decide not to if they find it's not
17 cost-effective. We are not requiring them to run for
18 another 20 years. Do you see what I'm saying?

19 MS. SHEPPARD: Yes, and I can see where you are
20 doing an environmental assessment on, say, a coal plant, to
21 make a contrast, although I'm not sure whether these generic
22 issues were included there, but I don't see how you can make
23 a finding that the environmental impact to conservation and
24 efficiency, and investments, and others of those kinds of
25 things is greater than the environmental impacts of

1 continuing a nuclear facility and having nuclear fuel stored
2 onsite.

3 I don't understand how you can make that
4 comparison unless you are doing a cost-benefit analysis.
5 You are telling me you are not considering the cost of the
6 true alternatives. You are considering the environmental
7 impact.

8 MR. KUGLER: Right, right. We really only look at
9 environmental impact. I guess the closest we come to
10 considering cost when it comes to alternatives, is we
11 discuss it in terms of capable and feasible or practical. I
12 guess you could possibly come up with an alternative that
13 could replace that amount of power, but cost so much that we
14 wouldn't consider it because obviously, nobody's going to
15 implement it because it would be too expensive, but we don't
16 really go into cost per se. We look at if you wanted to
17 replace this much power, how could you do it? One of the
18 possible alternatives we look at is a combination of
19 conserving and some other amount of replacement power.

20 I guess I would say, we don't consider it
21 practical to replace the Hatch units by conserving 1,800
22 megawatts of power. We don't think that's something that
23 could actually be done. I believe in the draft we gave
24 credit for 500 megawatts of conservation, which is a lot of
25 power, and then combining that with some other alternative

1 power source to make up the difference. Then what are the
2 environmental impacts of that? Certainly if you could do it
3 all with conservation, what are the environmental impacts of
4 that? They are basically none.

5 I understand what you are saying in that regard,
6 but we have to consider what could practically be done to
7 replace this power. So we have to look at a combination in
8 that regard.

9 MS. SHEPPARD: The argument falls apart because of
10 the cost of investing in nuclear waste. You are speculating
11 on one side about a situation which is known. You do know
12 how to increase efficiency in energy. You do now have
13 information. You have a lot of information about Hatch, and
14 as far as I know, the real issues are the cost of that.

15 So we've got one alternative that we really do
16 know how to accomplish, but it is perhaps costly. We have
17 another alternative that's continuing to operate nuclear
18 facilities without an end-waste disposal and we don't know
19 the cost of that. You all are telling us that is the
20 preferred alternative, and I think you're telling me that
21 you don't know the cost associated with that.

22 MR. KUGLER: Well, I think we do know the cost of
23 storing fuel onsite. I think the licensee could clearly
24 indicate how much it costs them to store onsite, but I
25 understand your point. I think what you're saying is, did

1 we consider the cost associated with onsite storage of this
2 fuel for some period of time which is not specified
3 entirely? In considering that, it might become prohibitive.

4 MS. SHEPPARD: Right.

5 MR. KUGLER: Is that? Okay. I understand the
6 comment.

7 MS. SHEPPARD: Okay. I appreciate it. Thank you.

8 MR. CAMERON: Thanks, Deborah. Let's go to severe
9 accidents. We're going to turn to Michael Snodderly who is
10 on the NRC staff, to talk about Severe Accident Mitigation
11 Alternatives. Mike.

12 MR. SNODDERLY: Thank you, Chip.

13 As Chip said, my name is Mike Snodderly. I
14 appreciate your interest in the Draft Environmental Impact
15 Statement. I'm a reactor systems engineer in the
16 Probabilistic Safety Assessment Branch of the Nuclear
17 Regulatory Commission. As Mary Ann mentioned, I'll be
18 describing our review of the environmental impacts of
19 postulated accidents during the license renewal period.
20 This is addressed in Chapter 5 of the Draft Environmental
21 Impact Statement. Can I get Slide 51, please?

22 During our review we considered two classes of
23 events, design basis and severe. Both of these classes of
24 events have been shown to pose no undue risk to the public
25 health and safety because core damage is either prevented,

1 or the probability of such events has been shown to be
2 small.

3 Let's first discuss design basis events, which are
4 postulated events that a plant is designed and built to
5 withstand without allowing core damage, thereby eliminating
6 the consequences of the event. For example, Plant Hatch has
7 been designed with core cooling systems to accommodate an
8 instantaneous break of a large reactor coolant pipe, along
9 with the loss of one power train. However, the accident at
10 TMI-2 reaffirmed that core damage is possible.

11 We refer to postulated events with core damage as
12 severe accidents. Severe accidents are primarily due to a
13 failure of core cooling systems, and generally involve a
14 combination of multiple hardware failures and human errors.
15 The Nuclear Regulatory Commission set out to verify that the
16 risk from this class of events was a small fraction when
17 compared to risks that we are generally exposed to, and the
18 goal that the Commission has come up with is one-tenth of
19 one percent of those risks that we are generally exposed to.

20 To accomplish this goal the NRC requested that
21 each existing plant perform an individual plant examination.
22 Now this examination has evolved into a Probabilistic Safety
23 Assessment at Plant Hatch. Thus far, the results of the
24 examination at Plant Hatch and the examination at all the
25 U.S. nuclear power plants including Plant Hatch, are

1 consistent with the Commission's safety goals that the
2 frequency of core damage events are extremely unlikely.

3 Now that we have some background on design basis
4 events versus severe events, let's look at how those were
5 considered in the Draft Environmental Impact Statement.

6 Design basis events were not shown to be
7 significant contributors to risk. This is not surprising
8 because the plant has been designed to withstand the
9 consequences of these events. So as we said before, when
10 core damage is prevented, the consequences are eliminated,
11 therefore, it is not a major risk contributor.

12 The staff has concluded on a generic basis that
13 existing design basis event analyses are appropriate for
14 the period of extended operation. Because this was concluded
15 on a generic basis, it is considered a Category 1 issue.

16 Now the impacts of severe accidents are Category 1
17 and 2 issues. The only thing requiring a plant-specific
18 analysis is the Category 2 issue. We are going to spend the
19 remainder of the time that I have discussing the plant-
20 specific aspects.

21 In particular, we evaluate whether there are any
22 cost-beneficial safety improvements that need to be
23 implemented as part of the license renewal. We refer to
24 these potential improvements as Severe Accident Mitigation
25 Alternatives, or SAMAs. Slide 52, please.

1 The purpose of this evaluation is to ensure that
2 plant changes that reduce the risks associated with severe
3 accidents are identified and assessed. We consider
4 alternatives that either reduce the likelihood that an
5 accident will occur, or that reduce the consequences of an
6 accident. We don't focus purely on mitigation after an
7 accident. The alternatives can be in the form of hardware
8 changes, procedure improvements, training, and so on. So we
9 try to take a broad look at the plant.

10 One thing we have found as a result of doing these
11 assessments is that hardware changes are typically difficult
12 to justify because of their cost, so we try to focus more of
13 our attention now on procedure improvements and training.
14 We will get more into the specifics of that in a moment.
15 Slide 53, please.

16 Now I would like to explain the basic process that
17 was used to identify and evaluate Severe Accident Mitigation
18 Alternatives. We relied heavily on the Plant-Specific Risk
19 Studies to identify sources of risk at the plant. So as I
20 mentioned, we began that process in 1988 when we requested
21 all licensees to perform a systematic evaluation of their
22 plants -- model the systems. We have a lot of data
23 concerning the reliability of those components that are used
24 to prevent and mitigate accidents. So now we want to try to
25 use that information to try to determine and quantify if

1 indeed, we are meeting the Commission's safety goals; that
2 the risk from the plant is a small fraction of the risk that
3 we as individuals take in our lives.

4 There were studies for both an
5 internally-initiated event like a pipe break, and
6 externally-initiated events that would be something like an
7 earthquake, a fire, a tornado. In addition, we looked for
8 insights that came from generic studies and plant-specific
9 studies that have been performed for other plants.

10 With the sources of risk identified, the next step
11 was to identify improvements that could reduce the risk.
12 Again, the Hatch-specific studies were the most important
13 source of potential improvements, with additional insights
14 from studies that were not specific to Hatch. The
15 risk-reduction potential and costs for the improvements was
16 then quantified.

17 What we're trying to say there is that obviously,
18 if we came up with another train of core cooling, we would
19 lower the risk at the plant, but that would cost hundreds of
20 millions of dollars. So we need to try to achieve some type
21 of balance between what is an appropriate modification or
22 alternative. To do that, we have developed the staff's
23 regulatory analysis guidelines. These are used to provide a
24 consistent methodology so that when we complete the license
25 renewal process, what we did for a plant in the Northeast or

1 the Northwest is the same as what we used for Plant Hatch.
2 Slide 54, please.

3 Now that we have some understanding of the generic
4 process, let's look at how it was applied specifically to
5 Plant Hatch, because I would imagine that is what most
6 everyone here is interested in.

7 First of all, candidate improvement that either
8 did not apply to Hatch or had already been implemented or
9 eliminated -- and as I said, this wasn't a new process that
10 we just began as a result of the license renewal
11 application. This process began back in the 1988 time
12 frame, when we asked existing licensees to look at their
13 individual plants for vulnerabilities, and to do that using
14 probabilistic modeling.

15 The next step was to look at improvements that did
16 not significantly reduce total risk. These were then
17 eliminated. The minimum risk-reduction candidates were
18 related to an Inter-System LOCA and recirculation pump
19 leakage. Inter-System LOCA and recirculation pump leakage
20 are important for pressurized water reactors, but contribute
21 little risk to boiling water reactors such as Plant Hatch
22 because they operate at lower primary pressures; typically
23 about half the pressure of a pressurized water reactor.

24 Then each remaining improvement was assessed and
25 assigned a level of risk reduction and an estimated cost.

1 The risk reduction was converted into a dollar value to
2 allow a comparison between the benefits of the risk
3 reduction and the cost. The improvements for which the cost
4 was clearly higher than the benefits, were eliminated early
5 in the process. Meaning, the implementation costs were
6 greater than the maximum benefit associated with eliminating
7 all severe accident costs. This cost was calculated to be
8 approximately \$500,000. So in other words, if the
9 alternative was estimated to cost more than \$500,000, we
10 wouldn't look at it further because in order to justify
11 \$500,000, you would have to eliminate all the risks
12 associated with the plant as currently modeled.

13 The final criterion considered is whether the risk
14 reduction is associated with aging effects. During the
15 period of extended plant operation this environmental
16 assessment was looking at the impacts of extending the plant
17 operation for another 20 years. So when we looked at
18 improvements related to Severe Accident Mitigation
19 Alternatives, we were trying to focus on those with
20 alternatives whose benefits are driven by aging effects.
21 Any candidate improvement with a favorable cost benefit
22 ratio that is not associated with aging effects, would be
23 processed by the staff under the plant's current operating
24 license. Let's go to Slide 55.

25 Basically, over 100 candidates were identified for

1 subsequent evaluation. Of these, 22 were already
2 implemented as part of the individual plant examination
3 process or on the licensee's own initiative. So this is
4 really the key point that I'd like to make this afternoon.
5 That is, as a result of the individual plant examination
6 process and work that's been done by the staff and the
7 licensee, we found this to be a very valuable tool. As a
8 result of that, 22 of the candidates evaluations were
9 already implemented. Now if we had just started that
10 process specifically for license renewal, we may have found
11 those 22 alternatives, but they had already been found as a
12 result of the work we've been doing since 1988.

13 In addition, 27 had a clearly negative net value,
14 and 56 were not applicable to the Plant Hatch design, or
15 offered minimal risk reduction. More detailed evaluations
16 were performed for the nine remaining improvements,
17 resulting in the determination that none of the potential
18 improvements had a favorable cost-benefit ratio. Slide 56,
19 please.

20 To sum up the results then, our overall conclusion
21 is that additional plant changes to mitigate severe
22 accidents are not required as part of the license renewal.
23 Again, I wanted to emphasize that it's key to understand
24 that the probabilistic safety assessments that have been
25 done by Plant Hatch, and the improvements that have resulted

1 from that process during the current operating license are
2 key, and resulted in 22 plant improvements that
3 significantly reduced the risk at the plant. Therefore,
4 it's not a surprise that we didn't find any additional ones
5 as a result of the license renewal process.

6 As a matter of fact, if all plants had completed
7 their individual plant examinations for internal and
8 external events, this may have been categorized as a
9 Category 1 issue and not a Category 2 issue, requiring
10 plant-specific analysis. Because every plant hasn't
11 completed their IPE and IPEEEs, the individual plant
12 examination for internal and external events, we wanted to
13 make sure that everyone had done an assessment to look at
14 alternatives and make sure that cost-beneficial ones were
15 implemented, as they have been at Plant Hatch. Thank you.

16 MR. CAMERON: Thank you, Mike. Any questions for
17 Mike? Mr. Holland.

18 MR. HOLLAND: Mike, who does the existing
19 analysis, the one that said that \$500,000 it would be
20 unacceptable to look at beyond that? Who does this
21 analysis?

22 MR. SNODDERLY: It's a combination. The
23 regulatory analysis guidelines, and I can give you -- Excuse
24 me. I'll get the reference. This is the Regulatory
25 Analysis Technical Evaluation Handbook; this is

1 NUREG/BR-0184. This is what we, the staff use. Two inputs
2 you use from that are the estimated core damage frequency
3 and averted person REM and frequency.

4 Now those things are determined by, in our case
5 for Plant Hatch, we used the Plant Hatch Individual Plant
6 Examination and their updated Probabilistic Safety
7 Assessment. We also have done Probabilistic Safety
8 Assessments for plants similar to Plant Hatch, and we
9 compare our results with theirs to make sure we are in the
10 same ballpark; that we didn't miss anything, or they didn't
11 miss anything. So it's a combination of those Probabilistic
12 Safety Assessments feeding in, to make the calculation to
13 determine that \$500,000 number.

14 MR. HOLLAND: Mike, I'm probably the most
15 uneducated human in this room and I've got one question for
16 you that I'm going to make my final comment on this thing.
17 Do you live near one of these sites personally?

18 MR. SNODDERLY: Yes. I have worked at a plant and
19 I guess, yes.

20 MR. HOLLAND: Okay. I find the idea, I mean, just
21 a mere -- that someone could believe that human lives aren't
22 worth more than \$500,000 is totally unacceptable. It's
23 beyond belief. I can't reason it. I can't believe it. My
24 God, some doctor bills come to almost that much. God, can
25 you all go back and do better than this? I'm just going to

1 -- I can't believe this is the way people think. You've got
2 to do better than this.

3 MR. SNODDERLY: I appreciate that, Mr. Holland.
4 Let me see if I can try to give you a greater perspective.
5 I mean, give the perspective of the Commission and how we
6 have tried to relate the risks associated with severe
7 accidents to those that we take in our everyday lives.

8 What they have tried to do is, through the Severe
9 Accident Policy Statement, they tried to assure that -- the
10 goal is that it be a small fraction, one-tenth of one
11 percent of those risks associated with early fatalities and
12 latent cancers. The modeling that we've done has shown that
13 it is a small fraction at .1 percent.

14 MR. HOLLAND: A small fraction. I used to work
15 for an organization that billed the government at the end of
16 every month. To ensure that we got our payment within 10
17 days, do you know what we put on there? We will give you
18 back one-tenth of one percent. Do you know what? That
19 guaranteed us getting our money.

20 MR. CAMERON: Mr. Holland, we're not catching you
21 on the record here. I think that might hurt your point.

22 Are there any other questions on this before we go
23 to the final, or the preliminary conclusion? Yes, Deborah.

24 MS. SHEPPARD: This is just a general question and
25 you all might not be the right people, but I believe I read

1 somewhere that the Southern Company is spending \$14 million
2 to proceed with this re-licensing. If that is correct, can
3 anybody answer that?

4 MR. CAMERON: I think that, I guess I would --
5 off-line if the Southern Company wants to talk to you about
6 that information, they can do that, but I don't --

7 MS. SHEPPARD: Okay. I was just curious when your
8 Department quoted that number.

9 MR. CAMERON: All right. We're going to turn to
10 Andy again, and then give you one last chance if you have
11 any questions for Mary Ann or Andy. Then we want to go to a
12 few statements. Andy.

13 MR. KUGLER: Okay. Before I get into the balance
14 of my presentation, the question had been raised earlier
15 about the years that the impingement and entrainment
16 monitoring were done. The information appears in the Draft
17 in Section 2.2.5 just for reference later. It indicates
18 that the five years that they monitored were 1975, '76, '77,
19 '79, and '80. That's where you will find it in the Draft.

20 To summarize, Supplement 4 to the GEIS -- the
21 Draft Environmental Impact Statement for Hatch -- contains
22 the results of the staff's review of the potential
23 environmental impact of the renewal of the Hatch licenses
24 along with our preliminary conclusions. The last bullet on
25 this slide is just there to remind you that the overall

1 decision of the Agency on the renewal of the Hatch licenses
2 is not based purely on the environmental review that we're
3 discussing tonight, but it also includes the safety review
4 that we discussed earlier. Slide 59, please.

5 Which brings us to our preliminary conclusions
6 that based on the findings in the GEIS, Southern Nuclear's
7 Environmental Report, consultation with local, State, and
8 Federal agencies, and our own independent review, including
9 our review of the comments received during the scoping
10 process. Slide, please. The staff concludes that the
11 adverse environmental impacts of license renewal for Hatch,
12 Units 1 and 2, are not so great that preserving the option of
13 license renewal for energy-planning decision makers would be
14 unreasonable.

15 That gives you our preliminary conclusions, but
16 now we are looking for input from members of the public.
17 Slide 61, please.

18 The period for providing comments began on
19 November 9, 2000, and will end on January 24, 2001. After
20 the comment period ends, the staff will assess all the
21 comments that we have received and determine whether or not
22 they are applicable to the environmental impacts of license
23 renewal. If appropriate, some comments may cause us to
24 change the Draft Environmental Impact Statement. In the
25 final version of our Environmental Impact Statement, we will

1 include in Appendix A, the comments received, how those
2 comments were evaluated by the staff, and what the
3 disposition of those comments were. So in the final
4 document, you will be able to tell how your comments were
5 addressed. As we did with the comments that we received
6 during the scoping period, if the issues raised do not
7 relate to the environmental impacts of license renewal, we
8 will refer those comments to the appropriate program office.

9 For example, we might refer to the Operating Plant
10 Project Manager in Headquarters, or to the Allegations
11 Coordinator. In addition, issues may be referred to other
12 agencies who might have an interest. Slide 62, please.

13 This slide gives you the current schedule for the
14 environmental review at Hatch for the balance of our
15 activities. As you can see, after the NRC finalizes its
16 review we plan to issue the final version of Supplement 4 in
17 July 2001. Slide 63, please.

18 This slide provides you with some contact
19 information, including my phone number. I am the designated
20 point of contact for the environmental review for the NRC.
21 All the documents that we spoke about today are available on
22 the NRC's home page on the web, at the address we've
23 provided over here, www.nrc.gov, and most of them directly
24 related to Hatch license renewal will be under the Reactor
25 icon, and then go in under License Renewal.

1 In addition, the Appling County Library in Baxley
2 has agreed to make a copy of the Draft Environmental Impact
3 Statement available to the public, along with Southern
4 Nuclear's application.

5 If you did not request or receive a copy of the
6 Draft Environmental Impact Statement, there are copies
7 available in the back and you can pick one up after the
8 meeting. Copies are also available through the Government
9 Printing Office. Slide 64, please.

10 Comments on the Draft Environmental Impact
11 Statement may be submitted by mail, in person, or by E-mail.
12 We have tried to provide as many options as possible to give
13 you the option that may be most suitable for you.

14 This ends our formal presentations. I want to
15 thank you all for coming out here today to listen to our
16 presentation, and for your attention to us. Your
17 participation is important to us because we understand that
18 you know this site and this area better than we do. So we
19 appreciate your input.

20 At this point I'm going to turn things back over
21 to Chip.

22 MR. CAMERON: Okay. Thank you, Andy. We do have
23 some statements from the members of the community coming up.
24 I just wanted to check in with you on a summary, okay?
25 We'll have some questions, perhaps final questions for you

1 on the Draft Environmental Impact Statement, Andy had told
2 you what the preliminary conclusions was.

3 There won't be a Final Environmental Impact
4 Statement or a final conclusion on Environmental Impact
5 Statements until after all the comments of the public have
6 been received and evaluated.

7 We'll just mention that there is going to be a
8 Safety Evaluation Report done in February. The Advisory
9 Committee on Reactor Safety is going to look at that Safety
10 Evaluation Report. They are going to have comments. All of
11 that safety information is going to come together with the
12 Final Environmental Impact Statement, whatever that is going
13 to show. We don't know what that will show yet. That will
14 be combined and considered by the staff in making it's
15 decision? Is that basically correct? Then it will finally
16 be approved by the Commission. Okay, good.

17 Deborah, you had a question I believe, before we
18 move on to formal statements?

19 MS. SHEPPARD: Again, I want to make sure I
20 understand the roles that each of you are playing. Everyone
21 but Ms. Parkhurst is a direct employee of the Nuclear
22 Regulatory Commission?

23 MR. KUGLER: That's correct.

24 MS. SHEPPARD: That's correct. In the case of Ms.
25 Parkhurst, your firm was contracted by the NRC to prepare

1 what portion of this statement?

2 MS. PARKHURST: Assist them with the preparation.
3 We were contracted to assist them with the preparation of
4 this document; assist them with the review of the
5 application of the Environmental Report that SNC provided,
6 and assist them with writing the Draft Environmental Impact
7 Statement.

8 MS. SHEPPARD: Okay, so your part in it is the
9 primary outside expertise that has gone into the project?

10 MS. PARKHURST: That's correct.

11 MS. SHEPPARD: I would love to know if you would
12 share with us just a couple of your other clients, and I'd
13 also love to know how many people participated in this from
14 your firm and what direct expertise those people have in
15 Southeast watershed hydrology, biology issues.

16 MS. PARKHURST: I'm not sure what is appropriate
17 to respond on that. I will mention that everyone from my
18 organization and from NRC who is involved in writing the
19 document is listed in one of the appendices, along with our
20 specialties. We've got a lot of expertise from a lot of
21 widespread areas. That's one reason that the NRC came to us
22 to look into this area.

23 MR. CAMERON: Does the expertise and all listed in
24 the --

25 MS. PARKHURST: There isn't a -- the specific

1 areas that they addressed or evaluated are in one of the
2 appendices along with our names, our organizations, and the
3 areas specifically, that we were working on in the document
4 is in one of the appendices, I think it's B, Appendix B in
5 the document.

6 MS. SHEPPARD: I'm sure I can find that, but I'm
7 just very curious if you could share with us your knowledge
8 or what specific expertise your team had on Southeastern
9 United States aquatic systems and hydrology and biology.

10 MR. CAMERON: May I ask you, whatever you know, I
11 think would be appropriate for you to share on that
12 particular issue.

13 MS. PARKHURST: I'd rather have -- Barry, please.

14 MR. CAMERON: Barry.

15 MR. ZALCMAN: Let me try to respond to this.
16 The Agency has a collection of technical specialists on this
17 task and we also contract, and Mary Ann Parkhurst is a
18 representative of Pacific Northwest National Laboratory. We
19 actually have a suite of national laboratories that work
20 with us.

21 It's fundamentally important when we begin the
22 audit process that we bring technical experts that are
23 actually considered experts in the field, but we actually
24 come to the site area and we coordinate and actually have
25 dialogue with those that are specialists in the region,

1 including State representatives on the water side, State and
2 local representatives on the socioeconomic issues so that we
3 have technical expertise. We're talking typically, a
4 national lab employee that at least has a bachelor's degree.
5 Moreover, they can have master's degrees. Some of them have
6 PhD's. The group that we have are typically seasoned
7 individuals that have broad expertise for an extended period
8 of time in the environmental regions.

9 Are they specifically working on a watershed in
10 Hatch vicinity? Absolutely not. Are they technical experts
11 in their field? Typically they are, and if they are not
12 experts they are overseen by experts in the field, but it's
13 with the coordination and the dialogue that we maintain
14 through audit, through this review with the State and local
15 organizations that help us round out what our understanding
16 is of the problems and of the challenges in this area. I
17 hope that explains a little bit. If you'd like, you can
18 provide your CV and John is here if you'd like to your
19 background. You'd have to demonstrate the background that
20 these individuals have to talk to these issues.

21 MS. PARKHURST: I can at least mention that. I
22 have an undergraduate degree in chemistry, a master's in
23 ecology, and a master's in radiological science with many
24 years of project management.

25 MS. SHEPPARD: From what university?

1 MS. PARKHURST: Is there a basis for that
2 question?

3 MS. SHEPPARD: Well, yes there is. I mean, you
4 all come from the Pacific Northwest and that's about as far
5 away from this plant as you can get. It's just a common
6 question.

7 MS. PARKHURST: It's not necessarily that we're
8 all from the northwest even though that's the organization.

9 MS. SHEPPARD: Yes. I understand that. You could
10 have a University of Georgia PhD on your staff.

11 MS. PARKHURST: One of our ecologists that
12 supervises the rest is a Duke University graduate, PhD
13 graduate in ecology. Again, we try to work in those that
14 have specific area involvement as well, and have done this
15 consistently.

16 MS. SHEPPARD: Okay.

17 MR. CAMERON: Do you have one more question?

18 MS. SHEPPARD: I'm sorry. I'm not trying to
19 belabor this, but the other clients, if you could just share
20 with us three or four or maybe five of your other clients
21 that would be useful.

22 MR. JAKSCH: Let me talk to the socioeconomics. I
23 have a PhD and a master's in environmental economics from
24 Oregon State University. I spent about 13 years working for
25 the U.S. EPA in Washington, D.C., most of which my focus was

1 down in this area. So that kind of gives you an idea of
2 some of the capabilities that we have. I'm also with the
3 lab out in the Pacific Northwest.

4 MS. SHEPPARD: Okay. Thank you for that.

5 MR. CAMERON: Just put your name on the record for
6 us too.

7 MR. JAKSCH: I'm John Jaksch.

8 MR. CAMERON: We're going to go to Cynthia.

9 MS. SOCHOR: My name is Cynthia Sochor and I have
10 a BS in mathematics and a BA in political science from the
11 College of Charleston in Charleston, South Carolina, as well
12 as an environmental engineering degree from Clemson
13 University in South Carolina.

14 MR. CAMERON: Okay. I think we need to get on to
15 the statements.

16 Do you want to state any of your work that has
17 been done on similar areas?

18 MS. PARKHURST: Are we talking clients here, or
19 are we talking projects like?

20 MR. CAMERON: Well, I think that the most
21 important part of it based on what Deborah was saying, was
22 projects that were similar analysis.

23 MS. PARKHURST: Similar?

24 MS. SHEPPARD: I'm just trying to understand who
25 your firm primarily worked for.

1 MS. PARKHURST: Mostly government agencies. We do
2 private work as well.

3 MS. SHEPPARD: Do you work for any utilities per
4 se?

5 MS. PARKHURST: Certainly not in -- I see Barry
6 getting up and I would want him to address that. I
7 shouldn't --

8 MR. CAMERON: We need to stop this. But this is
9 an important point. Barry could you just address the
10 conflict of interest issue? I think that's what Deborah is
11 getting at, and then let's move on.

12 MR. ZALCMAN: The Agency is very careful in
13 assuring that we do not have a situation where an individual
14 employee would work for a utility on the same type of issue
15 that is actually associated with developing the final
16 information that the Agency would be using. So the reason
17 that we use national laboratories as opposed to private
18 consulting firms that actually do consultations for the
19 industry is to remove any appearance of conflict. Wherever
20 we identify an appearance of conflict we terminate that
21 activity. So we're very careful; very judicious in who
22 does or does not work for or with us.

23 MR. CAMERON: All right. Thanks, Barry. Deborah,
24 I know you have most of the information you needed there,
25 but right now I'd like to go to the people who have -- we've

1 really appreciated the comments and questions that we've
2 heard already, and I think it provides a lot of useful food
3 for thought at least for us. I'd like to go to the people
4 who wanted to make a more formal statement. And I think it
5 would be appropriate to go to the Southern Company -- they
6 initiated the application for this. So I'm going to ask Mr.
7 Lewis Sumner, who is the vice-president for the Hatch
8 Nuclear Project to start us off.

9 Mr. Sumner, do you want to come down here? Why
10 don't you?

11 MR. SUMNER: Just a little bit about me before I
12 get started. When the question was asked, have you ever
13 lived around a nuclear power plant and the answer was yes, I
14 was at Plant Hatch for 22 years and I raised a family in
15 this local area here, so I'm as concerned about the effects
16 that Plant Hatch has on the environment as anybody, because
17 it directly affects not only my family when they were here,
18 but also I'm concerned about the long-term effects on my
19 family from what might have happened as long as they were
20 down here in the local area.

21 I started here in Plant Hatch back in 1975 out of
22 the Georgia Institute of Technology with a master's degree
23 in nuclear engineering. I started as an entry-level
24 engineer and my last position before I left was the General
25 Manager of the plant. I have held several positions there.

1 So I've had a chance to see the plant from an entry-level
2 position all the way up to managing it before I left.

3 My comments are like this. Number one, I want to
4 thank the NRC for what I believe is a very thorough review.
5 It looks like it has been very comprehensive. I think some
6 of the conclusions that they came to are some of the same
7 conclusions that we came to when we did our review of the
8 environmental effects of Plant Hatch.

9 We wouldn't be doing this if we didn't feel like
10 as a company it was the right thing to do, and I wouldn't be
11 promoting it if I didn't feel like personally it was the
12 right thing to do. Considering all the contributions that
13 Plant Hatch makes not only to the local area, but to the
14 State and local economy and some other security issues I'll
15 mention in the end.

16 We have been working on this process since around
17 December of '96, so we've been at this for a few years
18 because there is a tremendous amount of work that goes into
19 preparing not only just the environmental review, but the
20 other parts of the license renewal process that you don't
21 see here today. I do believe that the report, the summary
22 of which you've heard today, demonstrates the same
23 conclusions we reached. The impact of renewal is small and
24 certainly acceptable for the renewal period.

25 The people that operate and maintain Plant Hatch

1 do live in the local area, so the environment that they are
2 affecting is also the environment that they live in. So
3 they try to be good environmental stewards of the very areas
4 that they both live in and recreate in, and their families
5 live in as well.

6 We are committed to being a good neighbor while we
7 are trying to carry out our mission of generating electrical
8 power for this area of the country. We think we make a
9 major contribution to the local and State economy, as well
10 as to the quality of life in this area by supplying
11 electrical power to power the things that we have become
12 accustomed to. You know, the lights in this room that
13 extend our usefulness and our ability to get things done to
14 the computers we use here to connect ourselves to the
15 outside world and make us more efficient, as well as simple
16 things such as the heating and cooling that make cold nights
17 bearable and very hot days bearable also. So we think we
18 have a mission that does promote, you know, a quality of
19 life improvement here.

20 I want to thank the neighbors that have continued
21 to support us. We certainly do have an impact on the local
22 economy, on the environment, and on the local area as far as
23 organizations and things that our people not only that work
24 at the plant participate in, but also work toward to help
25 make the local community better.

1 Like I said earlier, we are continuing to work
2 hard to be good environmental stewards and be a significant
3 contributor to the local area. I personally also believe
4 that we promote the security of reliable electrical power in
5 this country by being an alternative means of generating
6 electricity. Some others were mentioned up there earlier
7 today, and I think if you read in the newspaper about some
8 of the issues that are going on in other states about the
9 reliability of alternative means of generating electricity,
10 you don't see those issues related to our particular form of
11 generating power. So I think we are a viable and valuable
12 contributor to the energy security mix of the United States.

13 I believe that this is the right thing to do for
14 us. I think it's the right thing to do for the local area.
15 I appreciate the review that the NRC has done and I believe
16 that we will demonstrate as time goes on that we are good
17 environmental stewards of our facility, of the environment,
18 and this is the right thing to do for us. Thank you.

19 MR. CAMERON: Okay. Thank you, Mr. Sumner.

20 We have two local government officials here, I
21 believe that we'd like to hear from, and then I'd like to go
22 to Sarah Barczak from Georgians For Clean Energy, and then
23 we have one other speaker.

24 Steve Rigdon, from the City of Baxley. I believe
25 the Mayor?

1 MR. RIGDON: Yes.

2 MR. CAMERON: Mayor Rigdon, okay.

3 MR. RIGDON: My name is Steve Rigdon. I am the
4 Mayor of Baxley. I was in this room in May when we had one
5 of the hearings, and at that time I spoke in favor of
6 renewing the licenses.

7 As I said at that time, I was not a technical
8 person. I didn't understand some of the technical
9 terminology that was used that day, nor could I speak in a
10 lot of the technical terms, but I've lived around Plant
11 Hatch ever since it started. I've raised my family here.
12 I've got a lot of friends that work there.

13 I have the utmost respect for the personnel that
14 work there. They have the highest integrity and are very
15 concerned about environmental issues and all the issues that
16 were discussed here today, they are very concerned with.

17 I have followed their safety record on a local
18 level and I know that they have a lot of checks and balances
19 that they have to check every day, and I feel comfortable
20 with those.

21 After having seen the review today and having read
22 some of it myself, I am more comfortable today than even in
23 May, that the renewing of the license process is the thing
24 to do. I very much appreciate the work that went into it.
25 I had no idea all of the research, the verification, and all

1 that went into the process for the re-licensing.

2 I am comfortable with the level of work that was
3 done and I'm here to say that Plant Hatch has been good for
4 our community. They are good neighbors. They are very
5 responsive, and I continue my support of Plant Hatch, as
6 well as recommending to the NRC that they continue with the
7 re-licensing process. Thank you.

8 MR. CAMERON: Okay. Thank you, Mayor Rigdon.

9 Let's go to Mr. Jeff Baxley, of the City of
10 Baxley.

11 MR. BAXLEY: Thank you, Chip. I'm Jeff Baxley.
12 I'm the City Manager of the City of Baxley.

13 I probably should have come down with our mayor
14 and stood behind him and just nodded as most good city
15 managers probably should do, because what I have to say
16 basically echoes what he said. I too was here last May to
17 lend my support for this re-licensing effort, and I'm here
18 again today for that same reason.

19 I would like to commend the NRC for the in-depth
20 process in looking into this re-licensing issue with the
21 environmental impact. As I mentioned in May, I certainly
22 trust the rules and regulations the NRC set forth, but I
23 guess more importantly, because I do live in Appling County
24 and in Baxley, and was born and raised there and have lived
25 there since 1956, I have all the confidence in the world

1 that the people that work at Plant Hatch will be sure that
2 these rules are implemented, and provide a safe place for my
3 family as well as their families.

4 I think there are about 800 employees at Plant
5 Hatch. About 300 of those live in Baxley and Appling
6 County. I probably know, I would say 80 percent of those
7 employees on a first-name basis. I can assure you that they
8 would not do anything to jeopardize their family or their
9 friends, or certainly the environment.

10 Many of them enjoy -- I heard others comment on
11 some of their concerns and I share those concerns. I share
12 them for the same reasons you do. I don't live on the
13 river. I live about 10 miles from it, but I enjoy going to
14 it almost every weekend to hunt and fish, and I would not be
15 in favor of anything that would damage that. It is a
16 wonderful resource and it's a place that I thoroughly enjoy.
17 I want my kids and my grandkids to be able to enjoy that
18 resource.

19 I do stand before you today in support of the
20 re-licensing of Plant Hatch. The economic reasons as Mr.
21 Sumner has already mentioned are obvious to us, but I think
22 it is important. I am very pleased with the findings of NRC
23 in their report today, and the fact that the option for
24 re-licensing is considered reasonable. Thank you.

25 MR. CAMERON: Okay. Thank you, Mr. Baxley.

1 Let's now go to Sarah Barczak from Georgians For
2 Clean Energy.

3 MS. BARCZAK: Hello everybody. Can everybody hear
4 me? My name is Sara Barczak. I have been working with
5 Georgians for Clean Energy for about a year. We are a
6 nonprofit conservation and energy consumer organization that
7 has been working to promote safe and environmentally sound
8 energy policies for Georgia, for almost two decades. My
9 primary expertise is in biology, and I work in our Savannah
10 field office.

11 My organization has submitted written comments and
12 presented oral comments at public meetings, etcetera, since
13 the Hatch re-licensing process began. While I myself was
14 not here in May, I did help put together the written
15 comments that we submitted in June. I did read through all
16 of the oral comments from the two meetings that were held
17 back in May and I was very amazed, and struck may be the
18 best word, by the fact that very few people actually spoke
19 about the scope of what the NRC had requested, namely, the
20 environmental impacts of Plant Hatch.

21 From those notes and also from what was said
22 today, Mr. Cameron, who is was Facilitator back in May and
23 now again today, had stressed that the purpose of the NRC
24 being here is to gain insights on the environmental issues
25 related to the Hatch license renewal application. As I

1 said, almost everyone spoke about how wonderful nuclear
2 plant Hatch is for the economy and how Hatch has been such a
3 good neighbor because it provides such a large percentage of
4 Appling County's tax base, 68 percent in 1998 alone, and
5 they don't know where they'd be without Plant Hatch. Yet
6 economic studies in the Savannah River site region have shown
7 that it isn't healthy for a region's economy to have a
8 nuclear industry contributor that provides even as high as
9 14 percent of the local tax base. Such reliance is not
10 healthy.

11 My organization is very concerned that the
12 community is focusing almost entirely on perceived economic
13 benefits and is overlooking the environmental impacts, along
14 with the long-term economic growth implications, including
15 the possibility that there could be a meltdown and
16 catastrophic consequences to the local resources here.

17 I was struck by the fact that the sheriff of
18 Appling County didn't talk about emergency planning
19 concerns, security issues, and terrorists threats, but
20 rather on how great the plant was or is.

21 People often spend a lot of time explaining where
22 they are from which is very important. The highest
23 vulnerability from the plant is within this local area. I
24 am from Savannah, and we are also vulnerable in terms of an
25 accident. I do care about what happens here. I am

1 concerned about this region, its people and land, and I do
2 lay awake at night thinking about members that we have in
3 this region and all of you. I want to stress that it isn't
4 a job so to speak, it is a genuine concern that I have for
5 you and this region.

6 Georgians for Clean Energy is here to tell the NRC
7 that this nuclear plant should not be re-licensed for a
8 variety of reasons, but as I said earlier, we are to speak
9 about the environmental impacts of the Generic Environmental
10 Impact Statement, Supplement 4, so I will speak about those.

11 We would like to state publicly that Georgians for
12 Clean Energy does not believe that our written comments or
13 our oral comments that we presented, and other organizations
14 presented have really been looked at.

15 I probably didn't make myself clear in some of my
16 questions, that it is hard to look at this GEIS and figure
17 out, you know, was my concern addressed, or was the Altamaha
18 Riverkeepers concern addressed? What were their concerns?
19 What were other people writing in about? I didn't have the
20 ability to find that very easily, and yes, now we know we
21 can go through the Public Document Room, but that is a feat
22 in itself. I have done that, but it's not easy.

23 We sent additional written comments to supplement
24 our previous oral statements and thought that those efforts
25 which were very time-consuming were for naught. All

1 statements submitted either in written form or orally should
2 have been included in the Draft EIS as I had suggested
3 earlier. Valid and strong statements of environmental
4 concern were made and were supported by a multitude of
5 documents that the NRC needs to pay attention to, and we are
6 disappointed that the first team of reviewers did not.

7 So as a request to the panel that we have before
8 us, we request that this panel reevaluate all of the oral
9 and written comments concerning environmental issues that
10 were previously presented to the NRC during the
11 Environmental Impact Statement process.

12 Specifically, we take issue with Appendix D,
13 "Organizations Contacted." Not one non-governmental,
14 environmental, or conservation organization was contacted.
15 It appears that in this Environmental Impact Statement,
16 effort was put forth to contact Realtors, but not one group
17 that focused on the environment, health issues, or
18 conservation issues. The State of Georgia agencies that
19 were contacted do not have expertise in radiation and its
20 effect on species as a whole, and the ecology of the region.

21 The drought issue was commented on earlier as
22 well, but I'd like to highlight this. Everyone here knows
23 that we've been experiencing a very tenacious drought, and
24 that water issues are in the forefront of many people's
25 minds including our Governor. The Altamaha River is very

1 important as we all know, to this region for the wildlife,
2 commercial fishermen, recreational enthusiasts, and more.
3 Plant Hatch has to rely on water resources too, and it
4 relies on them to an alarming degree.

5 According to the licensee, Hatch is permitted to
6 withdraw a monthly average of 72 million gallons of water
7 per day, with a maximum 24-hour rate of up to 104 million
8 gallons per day from the Altamaha. Hatch's average is about
9 57 million gallons per day, with 25 million gallons returned
10 to the river. So overall, on average Hatch consumes about
11 33 million gallons of water per day. That is impacting the
12 river flow. That is a problem under severe drought
13 conditions and could alter river habitat in unexpected ways.

14 Furthermore, we should not forget, and I hold this
15 dear to my heart because of where I'm living in Savannah, we
16 should not forget that Hatch is permitted to use a monthly
17 average of 1.1 million gallons of water per day from the
18 Floridian aquifer. We have our own issues with that in
19 Savannah, with the dredging and everything else. That's what
20 they are permitted to use. Their average is less than that,
21 but that is what they are permitted to use.

22 When this plant was licensed, the severe concerns
23 over our water resources did not exist. We weren't in
24 drought conditions. We are now. These permits and
25 conditions need to be reevaluated based on current laws and

1 regulations. If this were a new nuclear plant that they
2 were trying to license, they would need to comply with all
3 current State and Federal water usage and pollution-control
4 standards. This license application renewal should be
5 viewed in the same light. I know it's not, but that's what
6 we feel that it should be. Yet according to this Draft
7 GEIS, license renewal will not have an adverse impact on the
8 Altamaha ecosystem. We challenge that determination. I am
9 hurrying here, so bear with me.

10 Since Hatch was built, the Southeast has entered
11 a period where we have had more severe droughts. We do
12 not believe that the NRC has conducted a thorough and
13 site-specific investigation of this issue. At the very
14 least, the NRC needs to more accurately determine how Hatch
15 impacts the region during extended drought periods. A
16 consumptive loss of 3.1 percent during minimum discharge
17 periods is not insignificant and certainly needs to be
18 researched further. For instance, how does the NRC know
19 whether or not the drought and the strain that Hatch places
20 upon the river's flow during a drought, doesn't increase the
21 stress on the already endangered Short-nosed Sturgeon to a
22 level that the species can no longer handle?

23 Many of the reports that were referenced in the
24 Short-nosed Sturgeon section of this Draft GEIS, were based
25 on studies that were done in the 1970's and 1980's. So

1 conditions have changed and I think they need to be
2 reevaluated.

3 Additionally, the GEIS didn't address concerns
4 around discharge temperatures at the point it enters the
5 river or within the mixing box. I did mention this earlier
6 in a question, but I'll rephrase it. A maximum discharge
7 temperature in the mixing box, which is reported to the EPD
8 quarterly, was 94 degrees Fahrenheit in the summer. Does
9 that effect the river more so during periods of drought, in
10 which fish and plants, etcetera, are already stressed? What
11 is the temperature at the discharge pipe on a daily basis?
12 If that is not being measured, why not? These studies need
13 to be done before a license extension can be granted.

14 Additionally, why hasn't the EIS addressed
15 additional water quality concerns regarding the release of
16 radioactive contaminants to the environment? We will
17 identify further water quality concerns in our written
18 comments, so look in the appendix next time and maybe you
19 can read them.

20 Though many people at the first hearing seemed
21 convinced that nuclear power does not release emissions into
22 the environment, I would like to point out that radioactive
23 water vapor is lost to the atmosphere every day. It is a
24 fact of nuclear power plant operation. In Hatch's case, as
25 I said earlier, an average of 33 million of gallons of water

1 per day is lost, primarily in the form of radioactive water
2 and radioactive water vapor. It is unfair and misleading to
3 the communities to be told otherwise.

4 Through the water cycle, the contaminated vapor is
5 often deposited in the form of precipitation. This
6 precipitation then makes its way into our rivers and onto
7 the grass that our cows eat, and through the ingestion
8 pathways, eventually to the milk in our coffee. State EPD
9 Reports show that measurable levels of man-made radioactive
10 contaminants are found in vegetation samples, and there are
11 a number of rare and threatened species that are sampled and
12 do show these levels.

13 How can the NRC determine that a license extension
14 of Plant Hatch will not add to the stress of the many rare
15 and threatened plant species in this area? Especially when
16 many plants species are already undergoing stress under
17 drought conditions, along with continuous contamination from
18 the Hatch facility. It is an established scientific fact,
19 that radioactive contaminants bioaccumulate up the food
20 chain. There are of course, regulatory limits, but let's
21 remember that these limits were not set with the health
22 effects of low-level radiation exposure in mind. The limits
23 are generally set to allow industry to operate. That's just
24 kind of the way it is. It's not any comment on anyone in
25 this room.

1 Studies on the effects of tritium, which is
2 essentially radioactive hydrogen, a primarily man-made
3 radioactive element produced during nuclear reactor
4 operation, have found that it easily crosses the placenta
5 and may have the greatest impact on the developing fetus.
6 As water, tritium can easily enter our cells. Yet our
7 drinking water standards base the tritium limits on the
8 average-sized man. Cesium-137, which is also a man-made
9 radioactive contaminant and gamma emitter, has been measured
10 in fish, shrimp, and crab samples as far down as Wolf
11 Island.

12 As Mary Ann said earlier, when she referred to
13 seafood and said -- I'm paraphrasing here -- seafood as in
14 shrimp and things like that, that really struck me that
15 there is a bi-annual report that the EPD does, where they
16 collect shrimp, and mussels and fish, and all kinds of
17 things and it's in there. It's in the meat of the fish.
18 Some of it's in the bones of the fish and they are not at
19 levels that should necessarily send up a red flag, but they
20 are there and they are very far away.

21 Cesium-137 mimics potassium and collects in the
22 muscles and Strontium-90 mimics calcium and collects in our
23 bones. It is a fact that the decay products coming off of
24 nuclear plants, whether it is through the stack or directly
25 into the water, generates Cesium-137 and Strontium-90. The

1 effects for instance, of Strontium-90 leads to many types of
2 bone cancers. The elderly, children, and people with immune
3 disorders are most susceptible to the effects of ionizing
4 radiation.

5 At the meetings last May, people spoke about how
6 the fish still taste good, maybe even better. Radioactive
7 contamination is the most insidious form of pollution
8 perhaps because it is the most sly. We can't see it, taste
9 it, or smell it, so it's hard for people, including our
10 regulatory agencies, including myself to understand it. The
11 fish won't taste different. They'll just have stuff in them
12 that may be affecting them and their offspring just as it
13 may eventually affect you and yours.

14 Now I'm going to wrap up. Back to the economics
15 that people love to talk about. Plant Hatch sits alongside
16 the Altamaha River, Georgia's largest waterway, near prime
17 agricultural areas and is two counties upstream from
18 Georgia's beautiful Golden Isles. The interests of South
19 Georgia's communities and the thousands of nature-based jobs
20 that support at least one-fifth of our region's economy are
21 impacted by the NRC's decision to re-license this aging
22 nuclear plant. Georgians For Clean Energy demands that the
23 NRC conduct proper, site-specific evaluations of the actual
24 impacts of Plant Hatch on this region. Past plant
25 operations, accidents, spills, worker contaminations, and

1 routine releases have to be considered which are already
2 listed on the NRC's own docket and have obviously gone
3 unread.

4 I'm not going to go through this list, but I had a
5 brief list of Licensee Event Reports that happened the last
6 week of August to the first week of September. Maybe I'll
7 just submit this to Chip, but we had one on the 31st, the
8 4th, the 8th, the 11th, the 20th, the 25th, the 27th, and
9 the 29th. Those aren't all that's required to be reported,
10 and they are not necessarily all serious events, but some of
11 them were and they need to be looked at.

12 Simply stated, the plant is aging as we are all
13 aging, and there's no excuse for an unauthorized person to
14 enter the plant. That was one of the things that had
15 happened. The NRC needs to read the entire docket, which
16 wouldn't be very fun at all. Every violation, every LER,
17 everything going back to start-up. No one would allow this
18 plant to be re-licensed if they sat down and read the entire
19 docket.

20 Please include in the EIS review, new problems or
21 incidences and indicators of problems at Hatch that have
22 developed in the past few months. We strongly believe,
23 given the extensive documentation that we have collected,
24 that if a proper analysis were done, the NRC would have no
25 other choice but to deny Plant Hatch's license renewal

1 application.

2 If this license renewal application goes through,
3 there will be many heavy stones left unturned.
4 Unfortunately, the health of this community and surrounding
5 regions is what we stand to lose and we can't afford that,
6 nor do we accept that. Thank you.

7 MR. CAMERON: Okay. Thank you, Sarah. If you
8 have a copy of that we could attach that to the record. All
9 right. Our last speaker tonight, is it Dusty Gres? All
10 right, Dusty.

11 MS. GRES: My name is Dusty Gres. I am the
12 director of the Regional Library System, which covers the
13 areas of Toombs, Tattnall, and Montgomery Counties, all of
14 which border the Altamaha River. I also live on the
15 Altamaha River, and since I don't see any of my neighbors
16 here, I live closer to the plant than anybody in this room.
17 I live three miles west on the Altamaha upstream.

18 I appreciate all of the information that is in the
19 draft document. I can tell you that after working in the
20 government documents business for 25 years, trying to help
21 the public read and understand city, county, State, and
22 Federal documents, this one ain't bad.

23 I would like to see more in the appendix in the
24 initial draft document, and I do point out to the NRC the
25 efficacy of indexing, which you don't do yet. As a draft

1 document it contains a great deal of information.

2 I am gravely concerned about the environmental
3 impact, and I am gravely concerned about the fact that many
4 of the tests were done earlier and have not taken into
5 account certain environmental issues, particularly the
6 drought.

7 When you look for instance, at the temperature of
8 the water as it's going in, I happen to know what the
9 temperature of the water was when it was coming out and we
10 are not dealing with the fact that the water that's coming
11 in has risen in temperature a great deal. Given the fact
12 that -- Do you want to say that I am impacted because of the
13 economic issues? Yes, because my patrons live in this area,
14 but I don't get tax money from the plant.

15 I will say that I am in favor of the renewal. I
16 am in favor of the renewal because I've lived next to a
17 coal-fired plant. I've had a library next to a railroad
18 track where coal trucks went by and I know that there are
19 environmental impact issues that are greater in different
20 kinds of plants. So I support this. I support it because I
21 canoe down that river, I swim in that river, and I eat the
22 fish out of that river, but I have seen that there is not a
23 great deal of environmental impact right now and I can name
24 at least 30 different plants and animals that are either
25 rare or close the endangered list, that I personally have

1 identified on that property, that are growing. So I
2 continue to support it in those terms, with the caveat that
3 I believe that better testing needs to be done.

4 I also formally request the NRC, that since the
5 counties that I represent in my public library are more
6 counties than just Appling, that all documents be deposited
7 in my library as well, because I have more of an impact than
8 Appling County does since I have more counties that are
9 within that service area.

10 MR. CAMERON: Thank you very much, Dusty. Thank
11 all of you for your attention and also for the comments.
12 We're going to be here again at 7:00 o'clock if anybody is
13 interested in coming back, but thank you very much.

14 (Whereupon, 4:45 p.m., the meeting was recessed,
15 to reconvene, at 7:00 p.m., this same day.)
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