U.S. NUCLEAR REGULATORY COMMISSION

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DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

TO THE GENERIC ENVIRONMENTAL IMPACT STATEMENT

FOR LICENSE RENEWAL OF

VOGTLE ELECTRIC GENERATING PLANT

UNITS 1 AND 2

WAYNESBORO, GEORGIA

PUBLIC MEETING

7:00 p.m.

Tuesday,

June 3, 2008

Auditorium, Waynesboro Campus

Augusta Technical College

216 Highway 24 South

Waynesboro, Georgia

PRESIDING:

DONNIE ASHLEY, Facilitator

ALSO PRESENT:

J.P. LEOUS, Environmental Project Manager,
Division of License Renewal
Nuclear Regulatory Commission
ANDREW CARRERA, Health Physicist (Radiation),
Nuclear Regulatory Commission
ERIC BENNER, Branch Chief,
Division of License Renewal
ROGER HANNAH, Atlanta Regional Office
MARK NOTICH, Environmental Project Manager,
Office of New Reactors
DENNIS BEISSLE, Hydrology and Water Use Issues
LOUIS BLAKE, HALL JULIAN Regional Inspection
Team, Region II

I N D E X

E V E N I N G S E S S I O N

MR. ASHLEY: We'll go ahead and get started. For those of you who were here this morning, we're going to change things a little bit; we're going to use this wall for the slides.

My name is Donnie Ashley, and I'm the Senior Project Manager, Nuclear Regulatory Commission. It's my pleasure to welcome you to -- as facilitator of the meeting this evening.

Today, we're here to discuss and to receive your comments on the Draft Environmental Impact Statement for the license renewal of the Vogtle Electric Generating Plant, Units 1 and 2.

The Draft Supplemental Environmental Impact Statement, or DSEIS, is the 34th supplement to the Generic Environmental Impact Statement for license renewal of nuclear power plants, otherwise known as NUREG 1437.

Before we begin, I'd like to take a moment to let you know what to expect from this evening's meeting, as well as go over a few ground rules. During this meeting we will occasionally use acronyms or some other technical jargon. We're going to try to limit that as much as we can, and if we -- you know, we'll try to define the acronym as we use it.

If there's a term you do not understand, let us know, and we'll explain it to you.

We're going to start off this evening with a presentation by J.P. Leous. J.P. is the Environmental Project Manager for license renewal at Vogtle at the Nuclear Regulatory Commission. He's been with us for about a year and a half, working on these environmental reviews and working with me on the safety side of the evaluation.

J.P. brings a great deal of experience -- diverse experience to the Agency, including work with the Peace Corps and studies in Europe. J.P.'s master's degree is in Environmental Policy from Columbia University.

Once J.P. has finished his presentation specifically on the results of the environmental review and how you can submit comments, we're going to answer your questions and of course receive any comments that you would like to make for the record.

We have several individuals who have specifically signed up to speak this evening, and we will hear them first, and they will appear in order in which I received a yellow card. If you did not fill out one of the yellow cards and you would still like to speak, we will give you an opportunity to do that before we conclude

the meeting.

We are taking a transcript of today's meeting, which is one of the reasons that I'm using this microphone. Even though you probably -- this room is probably small enough to get by without one, but we need to make sure that we're picked up okay on the tape.

So if you do plan to make a comment or ask a question, it is important to use one of the mics; you can either come up here and make your comments, or I'll bring a portable mic to you.

We'd like to thank Ms. Brenda Thompson, of Neal R. Gross & Company, for her work in transcribing this meeting.

The first time that you do ask a question, for the transcriber, we would like for you to identify yourself, any organizations that you're associated with, and by doing that it allows us to make sure that your specific comments are attributed to you and are identified in the transcript.

I'm going to ask that one person speak at a time so that we can make sure that we get all the information that you have for us, and we keep side conversations to a minimum.

We have some other NRC staff with us this

evening, and I'd like to introduce them before we begin. Eric Benner is the Branch Chief for Environmental Reviews of License Renewals, Nuclear Regulatory Commission; Dennis Beissle is here to answer any questions that you have on hydrology and water use issues; Andy Carrera is going to pull duty tonight as our projector operator, and he also helps us at headquarters and will answer questions regarding radiation protection; Mark Notich is the Environmental Project Manager for New Reactors and will answer your questions concerning new reactors and Vogtle's application for additional units.

Earlier today, at the afternoon session, we had some additional folks here from Region II, who are here at Vogtle doing an inspection, and we also have Mr. Roger Hannah, from Region II's office.

When you came in, as I mentioned earlier, I hope that you got a copy of the slide presentation. We did move the projector around so you'd be able to see it as well now.

Following the meeting if you would make sure that you pick up one of the feedback forms, and either fill it out this evening or if you'd like to think about what you heard here and fill it out later and send it in, it's postage-paid, and it goes to J.P.

We would appreciate getting that information from you so that we can better improve all these presentations and public meetings.

So if you'd take a moment please to grab that BlackBerry or that cell phone and put it on mute or vibrate, we would appreciate it.

If this is your first time at this facility, the restrooms are located out the door, right again, and around to your right.

I'd like to thank Ms. Vicky Garrison and the staff of Augusta Technical College for allowing us once again to use this facility; this is a great facility, and we really appreciate the opportunity to use it for these meetings.

And with that, I'd like to thank you all in advance for your participation, and now I'll turn things over to J.P.

MR. LEOUS: Thanks, Donnie. As Donnie mentioned, I'm J.P. Leous, the Environmental Projects Manager for NRC's environmental review for the license renewal of Vogtle Units 1 and 2.

At this time, just a quick kind of side agenda item. On the side table we brought a bunch of different information for you to peruse and take home with you,

including CDs, with the Draft Supplemental Environmental Impact Statement on it that you can take later.

Also, you've heard Donnie mention I will also speak to the generic Environmental Impact Statement, and if you're curious about that document, you can access it on the website; I also brought a copy, a reference copy, for you to peruse if you'd like to do so.

So with that, thanks for taking the time to come to this meeting. I hope the information we will provide will help you understand the process we're going through, what we've done thus far, and the role you can play in helping make sure our Final Environmental Impact Statement is accurate and complete.

I'd like to start by briefly going over the agenda and the purpose of today's meeting.

I'll start off with a brief overview of the license renewal process and then move on to presenting the preliminary findings of our environmental review, which assesses the impact associated with renewing the operating licenses of Plant Vogtle Units 1 and 2.

Then I'll provide some information about the schedule of the remainder of our review and how you can submit comments in the future. And finally, the most important part of this meeting, receiving any comments

that you may have.

The Atomic Energy Act gives the Nuclear Regulatory Commission the authority to issue operating licenses to commercial nuclear power plants for a period of up to 40 years. For Plant Vogtle, the licenses for Units 1 and 2 will expire in 2027 and 2029, respectively. Our regulations make provisions for extending plant operations for an additional 20 years. The NRC received Southern Company's application for license renewal of Units 1 and 2 on June 29 of 2007.

As part of the NRC's review of that application, we performed an environmental review to look at the impacts of an additional 20 years of operation on the environment. We held meetings here on August 21, 2007, to discuss the overall license renewal process, including both safety and environmental reviews, and on September 27, 2007, to seek your input regarding the issues we need to evaluate.

Today we are here to present the preliminary results found in the Draft Supplemental Environmental Impact Statement, and afterwards, as mentioned, we'll open up the floor to your comments.

This slide illustrates the NRC's environmental review process used to evaluate the impacts of license

renewal. This process involves scoping activities, a site audit, and the development of a document called the Supplement Environmental Impact Statement or, as Donnie mentioned, SEIS.

The draft supplemental EIS, or Environmental Impact Statement, which we published in April 2008, provides the staff's preliminary assessment of the environmental impacts expected during the license renewal period.

Next I would like to give some information on the statute that governs our environmental review: the National Environmental Policy Act of 1969, commonly referred to as NEPA. NEPA requires that all federal agencies follow a systematic approach in evaluating potential environmental impacts associated with certain actions.

We at the NRC are required to consider the impacts of the proposed action, which in this case, is the license renewal. We're also required to consider alternatives to the proposed action. The NRC has determined that an EIS will be prepared for any proposed license renewal of a nuclear power plant.

NEPA and our document are disclosure tools. They are specifically structured to involve individuals

and groups from outside the NRC; for example, this meeting is intended to facilitate public participation in our environmental review.

In the mid-1990s, the NRC developed a generic EIS by evaluating the impacts of all operating nuclear power plants across the U.S. The NRC looked at 92 separate impact areas and found that for 69 of those areas, the impacts were the same for all plants with similar features.

The NRC called these Category 1 Issues, and we were able to make generic conclusions that all the impacts on the environment would be small. The NRC was unable to similarly make determinations for the remaining 23 issues, and, as a consequence, the NRC decided that we would prepare a Supplemental Environmental Impact Statement for each plant to address these remaining 23 issues.

The staff is supplementing that generic EIS with a site-specific EIS that addresses issues specific to Units 1 and 2 at Plant Vogtle. Together, the generic EIS and the supplemental EIS form the staff's analysis of environmental impacts of license renewal at the Vogtle site.

Also, during the review, the NRC staff looks for and evaluates any new and significant information that

might call into question the conclusions we reached previously in the generic document. In addition, the staff searches for new issues not addressed in the generic EIS.

This is our decision standard for the environmental review, and I'll give you a second to read it over. It's legalese for most, but essentially, is license renewal acceptable from an environmental standpoint?

NRC staff uses information from various sources as we conduct an environmental review. We use information received in the environmental report that was submitted as part of Southern Company's license renewal application.

We also conducted an audit in October last year, where we toured the facility, observed the plant systems, and evaluated the interaction of the plant operations with the environment. We talked to the plant personnel and reviewed specific documentation; we also spoke to the federal, state, local officials.

Additionally, we considered the comments received during the public scoping period. All of this information formed the basis for our preliminary conclusions presented in the draft Supplemental Environmental Impact Statement.

This slide shows the types of expertise assembled for the Plant Vogtle environmental review. As you can see, our diverse staff is made up of biologists, economists, health physicists, among others.

Here we see some of the major impact areas address in our review on Vogtle. And I'll discuss each of these areas in just a bit.

So how are impacts quantified? Well, the Generic Environmental Impact Statement defines three impact levels: small, moderate and large. I'm going to use a fish in the Savannah River as a hypothetical example to illustrate how we use these three terms.

Despite prevention measures, the operation of Plant Vogtle may affect fish populations due to the intake structure. If the decrease in fish is so small it cannot be detected in relation to the total population of fish in the Savannah River, the impact would be small.

If losses cause the fish population to decline but then stabilize at a lower level, the impact would be moderate. If losses cause the fish population to decline to the point where it cannot stabilize or continually decline, then the impact would be large.

We apply this type of methodology to each of the other areas that we looked at in the document,

including socioeconomics, air quality and so on.

The first set of issues I'm going to talk about are related to the cooling system. We looked at issues such as discharges from the plant into the Savannah River, aquatic species being affected due to water intake systems, and impacts the cooling towers may have on plants and birds.

All cooling system impacts applicable to Vogtle Units 1 and 2 are Category 1 issues covered in the generic EIS. This means that the NRC has made a generic determination that the impacts from normal nuclear plant operations during the period of extended operation, during the additional 20 years of licensing, are small.

Since impacts from the plant are not expected to increase on a year-to-year basis during the license renewal period and since we found no new and significant information related to this issue, we have preliminarily adopted the generic conclusion that impacts are small.

There is one aquatic species federally listed as threatened and endangered that has the potential to occur in the vicinity of Plant Vogtle or its transmission lines, and that's the shortnose sturgeon. As part of a formal consultation process with the National Marine Fisheries Service, NRC staff developed a biological

assessment for the shortnose sturgeon, which is included in the Draft Supplemental Environmental Impact Statement under Appendix E.

Based on this analysis, the staff's preliminary determination is that the impacts during the period of extended operation of both Vogtle Units 1 and 2 and its associated transmission lines for the shortnose sturgeon would be small.

Now, there are seven terrestrial species identified as having the potential to occur near the Vogtle site or near its associated transmission lines. However, of these, only the American alligator is found regularly on the site. That said, the American alligator is itself not rare, but has a listing status of "threatened due to similarity of appearance" in order to protect the endangered American crocodile, which is not known to occur at the site.

Wood stork individuals have been seen within two miles of the site, as well as at two locations on a shared transmission right of way; but the closest colony is 28 miles away.

The NRC staff reviewed information from the site audit, Vogtle's Environmental Report, Georgia's Department of Natural Resources, and the U.S. Fish and

Wildlife Service. The staff's preliminary determination is that the impacts during the period of extended operation for Vogtle Units 1 and 2 and its associated transmission lines on threatened or endangered terrestrial species is small.

Radiological impacts are also a Category 1 issue, and therefore the impacts during the license renewal period is small. By design, the operation of nuclear power plants is expected to result in small releases of radiological effluent. Plant Vogtle is no exception.

During our site audit we looked at selected parts of the radioactive effluent monitoring and radiological environmental monitoring programs and supporting documentation. We looked at how the gaseous and liquid effluents are controlled, treated, monitored, and released, as well as how solid radioactive wastes are handled, packaged, and shipped.

We looked at how the applicant's radiation protection program maintains radiological releases in compliance with the NRC's regulations. We also looked at the applicant's radiological environmental monitoring data from onsite and offsite monitoring stations. The data included in these results of evaluations of water, milk,

fish, food products, and direct radiation.

Based on our review of the data, we found the calculated dose to the maximally exposed member of the public to be well within NRC's radiation protection limits.

The dose of the maximally exposed person is a conservative calculation which assumes maximum values such as breathing rate, food consumption, drinking water, and proximity to the plant associated with an individual who is exposed from all radiation sources from the plant.

Based on a historic view of the radiological data and the current status of the plant's radiological systems, the staff concluded that radiological releases from the plant are expected to be similar, on a year-to-year basis, during the period of extended operation.

During the staff's review, no new and significant information related to this issue was found, and thus we have preliminarily concluded that the radiological impact on human health and the environment is small. This finding is consistent with the NRC's findings contained in the license renewal Generic Environmental Impact Statement.

Postulated Accidents: There are two classes of accidents evaluated in the Generic Environmental Impact

Statement: design-basis accidents and severe accidents. Design-basis accidents are those accidents that the plant is designed to withstand without risk to the public. The ability of the plant to withstand these accidents has to be demonstrated before the plant is granted a license.

Because the licensee has demonstrated acceptable plant performance for the design-basis accidents through the life of the plant, the Commission found in the generic EIS that the environmental impacts of design-basis accidents is small for all plants.

The second category of accidents is severe accidents. Severe accidents are, by definition, more severe than design-basis accidents, because the result would be substantial damage to the reactor core. The Commission found in the generic EIS that the risk of a severe accident is small for all plants.

Nevertheless, the Commission determined that alternatives to mitigate severe accidents must be considered for all plants that have not already done so. These are called severe accident mitigation alternatives, or SAMAs, and require site-specific analysis. The purpose of the SAMA evaluation is to ensure that plant changes with the potential for changing severe accident safety performance are identified and evaluated.

The scope of potential plant improvements considered include hardware modifications, procedural changes, training improvements, and basically a full spectrum of potential changes. The scope includes SAMAs that would prevent core damage, as well as SAMAs that would improve containment performance if a core damage event occurs.

The preliminary results of the Plant Vogtle SAMA evaluation are summarized on this slide. Sixteen potential SAMA candidate improvements were identified for Vogtle Units 1 and 2. Two SAMAs were identified as potentially cost-beneficial. Neither of the potentially cost-beneficial SAMAs, however, are related to managing the effects of plant aging during the license renewal period.

Accordingly, they are not required to be implemented as part of license renewal; regardless, Southern Nuclear Operating Company has indicated in their Environmental Report that they will further evaluate or implement these mitigation alternatives.

Cumulative impacts are the impacts of license renewal, taken together with other past, present or reasonably foreseeable actions regardless of what agency or person undertakes those actions.

The NRC staff has identified reasonably foreseeable actions occurring in the future that are considered in this review for its cumulative impacts on the environment. Among the identified actions, major facilities at the Savannah River site, including the proposed Mixed Oxide Fuel Fabrication facility, were included in our analysis.

Additionally, the construction and operation of up to two new nuclear units at the Vogtle site, Units 3 and 4, were considered. Southern Nuclear Operating Company submitted its combined license application for Units 3 and 4 in March 2008.

Submitting this application does not commit Southern Company to build a new nuclear plant there, nor does it constitute approval by the NRC. After considering and evaluating the environmental and safety implications of the proposal, the NRC will decide whether to approve or deny a license. Should Southern Company receive approval from the NRC and decide to construct one or two new nuclear power plants at the site, the cumulative impacts of this action would range from small to large in the immediate vicinity of the Vogtle site.

The specific cumulative impacts of the combined license action will depend on the actual design,

characteristics, and construction practices proposed by the applicant. Such details are not available at this time, but a team from NRC's Office of New Reactors is in the process of conducting this environmental review.

The detailed environmental impact of the combined license action at the Vogtle site will be on line and addressed in a separate environmental impact statement that will be prepared by NRC staff.

Of note, NRC has scheduled meetings to be held here at the Augusta Technology Center on July 17 to discuss the environmental review for Units 3 and 4. As mentioned, project manager for that, Mr. Mark Notich, is here this evening to discuss the process, should you have any questions.

As part of the environmental review process, we also evaluated a number of alternatives to license renewal; specifically, we looked at the impact of replacing the power from Vogtle Units 1 and 2, approximately 2300 megawatts, with power from other sources or utility conservation.

Alternatives that the team looked at include not renewing the license, as well as replacing all those generation of power from new power plants, including coal, natural gas, or new nuclear.

We also considered the impact and capabilities of providing replacement power with electricity purchased from other providers. Additionally we looked at other technologies such as biomass, wind, and solar. We also analyzed a combination of alternatives, including conservation, natural gas, wood-fire generation, and wind power.

For each alternative, we looked at the same types of issues that we did when evaluating the environmental impacts of license renewal.

The NRC's preliminary conclusion is that the environmental impacts of not renewing the licenses -- that is, plant shut-down -- could range from small to large impacts. Environmental impacts from likely power-generation alternatives could reach moderate to large significance, in at least some categories evaluated.

For the combination alternative, environmental impacts would likely be small for most areas considered, with some potential moderate impacts.

During the environmental review we found no information that was both new and significant. Therefore, we have preliminarily adopted the generic Environmental Impact Statement conclusions that the impact associated with the 69 issues will continue to be small.

In the Plant Vogtle Draft Environmental Impact Statement we analyzed the remaining 23 site-specific issues that were applicable to Vogtle Units 1 and 2 and determined that the environmental impacts resulting from these issues were also small.

Based on these conclusions, the NRC's preliminary recommendation is that the environmental impacts of license renewal are not so great that license renewal would be unreasonable.

Listed here are some important dates for the Plant Vogtle License Renewal Environmental Review. In April 2008 we issued the Supplemental Environmental Impact Statement, and we are currently accepting public comments on that draft until July 16, 2008. And, finally, the final supplemental EIS is scheduled to be published in January of next year.

This slide identifies me as your primary point of contact within the NRC for the environmental review. And Mr. Donnie Ashley is your primary contact for any questions related to the safety review, which is ongoing.

Documents related to the Plant Vogtle review may be found next door at the Burke County Library. And at the bottom of this slide is the Internet address where you can directly access the Vogtle Units 1 and 2

Supplemental Environmental Impact Statement.

There are several ways you can provide your comments on the Plant Vogtle Draft EIS: You can provide your comments today during the comment period, if you like, or you're not ready to do so, you can email your comments to Vogtle_LR_EIS@nrc.gov. You can also send your comments via mail, or you can hand-deliver them to our headquarters in Maryland.

And with that, this presentation is concluded, and I thank you for your time.

MR. ASHLEY: Thanks, J.P.

We come to that part of the program where we're going to give you an opportunity to give us your comments, so we can get them on the record, and we'll just go ahead and get right into it. Those of you that have filled out the yellow cards, I have those, and we will proceed in the order in which I received them.

First up will be Dianne Valentine, followed by Nina Cann-Woode.

MS. VALENTINE: Good evening, I'm Dianne Valentine. I'm here as a citizen who lives a little further downstream, downriver, downwind, of Plant Vogtle. I have a granddaughter who suffers from severe asthma.

She's spends at least one visit per year and requires care because of it.

I hadn't associated our environment with her health until I took her to my home in Maryland, where I grew up, and she didn't have to use her respirator, she didn't need her breathing treatment during that time we were there. But as soon as we got back home, she had another attack.

So I started trying to make an assessment of what was going on with her, and I came to find that some of the environmental research work that I was doing was related to having nuclear power plants in this southeast region.

And in my research I found that the studies that were done for health-related issues related to being near a nuclear power area or nuclear facility -- not just power; we have the Savannah River Site close by.

The assessment didn't consider children with compromised health or pregnant women; they considered European men of a certain age, certain weight, certain diet. So that concerned me, and I started trying to get as much information from as many people as I could. And I'm still not convinced that the impact that these facilities have on our environment are small. I do think

that they might be a little larger than small, even if they are medium of large.

But another concern that I have is that I understand business decisions, and I'm sure it was a business decision for Southern Nuclear and Georgia Power to go ahead and apply for the renewal of their license for 1 and 2. They probably don't consider it an early stage that they do have 20 more years left on their current license.

And I would like to see more time given for different criteria to be applied to some of the testing that was done for the environment and for children's health. And I really don't think that these types of things should be rushed. I really, really don't think that, even though, like I said, it is a business decision that I'm sure they made. I'd like for the NRC, DOE to give some consideration to the needs and health of the general public.

And I always hold my granddaughter up at these types of hearings, because she's the one who's suffering, and she does not have a voice. There are quite a few people who do not have a voice; they are adversely affected.

I met a lady at the last session that we had

who grew up in this area, on a river, and she's not as far away as my granddaughter is; she's right here, in Waynesboro and Augusta. And her family is continuing to die from cancer. They lived off the river; they fished for sustenance, and they can't anymore, because I'm not sure what you guys found, or maybe the fish that they fished to consume were not part of your study, but now they find that the fish have yellow meat and have sores on the outside of them.

So because certain things don't fall within the categories that you study doesn't mean that issues don't exist. And that's one of the reasons that I come to the sessions, to try to share my concerns as part of the public record, so that when you are pulling together your final assessment, that you do give these types of things consideration.

And I do appreciate you having me; I really do. And whenever I contact NRC, they're very generous with the information, continuing to make it available to me. And I appreciate that, because until I can be thoroughly convinced that the activities that take place at these nuclear power and weapons plants don't affect my granddaughter's health, I will continue to pursue my research of them.

And of course, there's always the waste, you know, and until we can figure out that issue, I really don't think we need to be creating any more of it. So I appreciate your patience and the opportunity to speak. Thank you.

MR. ASHLEY: Nina Cann-Woode, followed by William Hummel.

MS. CANN-WOODE: Hi again. Good evening now. I'm Nina Cann-Woode, and I speak today on behalf of Clean and Safe Energy Coalition. We are actively engaged in generating a public dialogue to educate others about the way nuclear power can add to the American energy security and economic growth and help improve the environment.

As technology advances, our economy and our population increases, so, too, our need for energy grows. The reality is we will require more from a variety of sources in the years ahead. A wise energy policy recognizes the virtue of diversity, and in that diverse plan, nuclear energy is a critical component.

As we approach the summer months, it is important to recognize that nuclear power plants have a proven record for performance in severe weather conditions, including droughts. Given extreme temperatures, they will continue to operate faithfully.

In fact, nuclear plants here in the Southeast were critical to meeting electricity demand during the two-week heat wave in August of last year, and posed an average daily capacity factor of more than 98 percent. During this time, too, Southern Company set an all-time system peak record of 47,870 megawatts, more than 7 percent higher than the previous record set in August 2006.

Nuclear plants consume small amounts of water relative to other uses. Electric power generation is among the smallest users of water, accounting for about 3 percent of fresh water consumption in America, according to the U.S. Geological Survey.

The majority of water is used for irrigation, at 8 percent consumption; all of our residential use is 7 percent.

Consider the facts: Nuclear energy is clean; it is the only large-scale emissions-free source of electricity that we can readily add to meet our growing energy demands.

We all have a shared stake in America's energy future. Now is the time for our country to support nuclear energy as a means to generate electricity with a clean, safe, and dependable source of power.

Thank you.

MR. ASHLEY: Mr. Hummel, followed by Ed Davidson.

MR. HUMMEL: Thank you and good evening. My name is Ed Hummel, and I also am here to speak on behalf of the Clean and Safe Energy Coalition. CASE Energy is a grass roots organization that's dedicated to inform the public of the benefits of nuclear technology.

Our coalition, comprised of over 1600 individuals and organizational members throughout the United States, is led by two of our co-chairs, former New Jersey Governor and EPA Administrator Christine Todd-Whiteman, and Greenpeace founder and former leader, Dr. Patrick Moore.

Nuclear energy already comprises 20 percent of the United States' electricity, and with electricity demand expected to increase 25 percent nationally by 2030, the U.S. needs more nuclear energy if it wants to keep up with our growing energy needs.

Conservation alone won't meet our growing needs, and nuclear energy can't be the only solution. A diverse mix of energy sources will serve us all best. With that said, as we look down the road, we should promote an increase in the use of nuclear energy as an environmentally clean, reliable path to meeting our

country's needs efficiently.

Nuclear energy is safe; in fact, the U.S. Bureau of Labor Statistics has shown that it is safer to work at a nuclear power plant than in the manufacturing sector, or even in the real estate or financial institutions.

Additionally, you would have to live near a nuclear power plant for more than 2,000 years to get the same amount of radiation exposure that you receive from a single diagnostic medical x-ray.

With rising energy costs a concern for every American, nuclear energy is an affordable and reliable economic choice for electricity. Nuclear power has the lowest production cost of the major sources of electricity; nuclear plants are the most efficient on the electricity grid, and their costs are more predictable than other energy sources.

A nuclear energy plant also makes a good neighbor. It supports high-paying jobs directly at the plant, generates additional jobs in the community where it is located, and contributes by helping to build good schools, better roads, and civic improvements.

It is with this that CASEnergy fully supports Southern Company's license for their renewal of the two

power plants, and I thank you very much for your time.

Thank you.

MR. ASHLEY: Ed Davidson, followed by Judith Stocker.

MR. DAVIDSON: Hi, my name is Ed Davidson. I'm an engineer, work for Southern Nuclear. And I didn't rehearse this, and I don't want to stay up here long, but my child suffers from asthma too, and as you brought that up; and I've known people with cancer. But I live in Birmingham, Alabama, and although I've worked with the plant, we've been moved from the plant.

But as an engineer, you know, I'd just like to say that I've had the privilege to study nuclear power, so -- and work in the industry, so I can vouch for the safety in the way we spend millions and millions and millions of dollars to try to make sure that we have barriers and barriers to protect the environment: automatic features that shut valves when there's the slightest hint of any kind of leak.

My father fishes too, and, you know, it's in my family, so we -- the environment is near and dear to our hearts, working in the nuclear industry, and I've had the privilege to study it. It's is a great technology; it obviously saves some CO2 production, as well as other

things; it's very safe, has been my experience.

And so I would hope that we could get the -- continue the license extension and to provide for the energy needs of our children, and hopefully we will have -- I've already had one child to work out at Vogtle, and I mentor for the children. One of the kids I mentor has worked out there too, and it's been a positive experience for my family and friends, and so I'm in favor of the license extension and Units 3 and 4.

Thank you.

MR. ASHLEY: Judith Stocker?

MS. STOCKER: Good evening. My name is Judith Stocker. I live in Keysville, which is about 13 miles down the road from here.

You know, it's kind of discouraging to sit here in these meetings and listen to experts tell us how safe and how clean nuclear energy is. But when you think that nuclear power begins with the mining of uranium, and it ends with radioactive waste that we'll never be able to get rid of, where does the clean come in?

It's safe only in that there has not been a meltdown yet. But, you know, if you just look back a few years ago at Three Mile Island or Chernobyl, you know the disastrous effects any kind of an accident at a nuclear

facility can have.

You know, they tell us that there's a small impact on the environment as far as fishing or as far as the water is concerned, yet we're advised not to eat the fish from the river.

Something in that just doesn't add up to me. I -- you know, I hear that nuclear energy is the least expensive to produce of all the energy sources; now, that I'll believe. That much I believe, because when you look at the fact that the energy companies are not even willing to consider other alternatives, it's, you know, that's where the crux of this whole thing is. It's profits for the nuclear power company, for the power companies.

It has nothing to do with how much they care or how safe they think this is; it's bottom line: how much is it going to affect our profit margin? You know, you hear that it's too expensive to produce wind energy or thermal -- geothermal energy or biomass energy.

I think it's time that the energy companies look at the fact that it has to go beyond just what their bottom line is, because no matter what they say, these plants are affecting peoples' health; they are affecting peoples' livelihood, and not always in a positive manner.

You know, I hear so much at all of the

meetings -- and I've been to two here in Waynesboro -- about what a great impact it has had on our economy, yet we still remain one of the poorest counties in the state. It doesn't add up.

I ask that you consider very carefully -- I have two children -- Alice, Clinton, stand up.

You know, we've already seen from studies that the water level in the Savannah River has gone down drastically since the two nuclear plants have come on line. It's not a small impact.

I would like for my children and their children to still be able to enjoy clean water, clean air, and an unpoisoned earth. Thank you.

MR. ASHLEY: That's all the yellow cards that I have. However if you would like to make a comment, we will open --

(Pause.)

MS. PAUL: Hello, my name is Bobbie Paul. Thank you for everything that you've done; we've been here before. I do have some questions, and I know there's some strong feelings, pro and con, for nuclear power.

And I think, if I understand it correctly, tonight you were looking for comments directly associated with the draft. Is that correct? So we're talking about

environmental impacts.

Like Dianne mentioned, I do have some questions about the "small." If an effect is not detectable, what is the effect? How does one determine that? I think it's -- I look forward to reading in more detail the impact statement.

With the radiological monitoring, I assume that the radiological monitoring that is done of the radiological impacts is done by whom? Southern Company? Is it an internal monitoring, or is it an EPD, or is it a federal? Can anyone answer that?

(No response.)

MS. PAUL: This is supposed to be informative?

MR. CARERRA: Yes, ma'am. My name is Andy Carrera. You were asking about the environment surrounding the monitoring program. As the part of the regulation, the licensee is required to comply with the environmental monitor program that NRC put out. So they're required to do the monitoring for liquid waste, gaseous waste, and direct radiation.

In addition --

MS. PAUL: And the licensee is?

MR. CARRERA: Yes, in addition -- the licensee does the monitoring, and also in addition to the licensee,

the Georgia Department of Natural Resources also does do monitoring in that area as well. And I did have a meeting with them when I did the radiological review and concurred with the licensee's data, and that's how we come up with the impact, and --

MS. PAUL: And who does the original monitoring? The first level monitoring? When you say the licensee, is that Southern Company, Southern Nuclear?

MR. CARRERA: Yes, ma'am. Southern Nuclear does the first level, and we compare that to the Georgia Department of Natural Resources.

MS. PAUL: Oh. So there are two sets of monitoring data. Am I correct?

MR. CARRERA: Yes, ma'am.

MS. PAUL: Okay. And Southern Company goes first, and then Georgia EPD, or the Natural Resources --

MR. CARRERA: Yes, ma'am. They do cross-checking, and they also do sharing of the samples that they got. For example, milk, they share milk --

MS. PAUL: [inaudible]

MR. CARRERA: Yes, ma'am -- and fish and all that.

MS. PAUL: Okay. Do they also do the rain?

MR. CARRERA: That they do collect, yes. Yes,

ma'am.

MS. PAUL: Great. And the river itself?

MR. CARRERA: River, and sedimentation as well.

MS. PAUL: Great. Thank you very much --

MR. CARRERA: Thank you.

MS. PAUL: -- for that information.

I do question why, with this permit, this licensing having a whole other 20 years, why we are now looking at 40 years down the road. And when I hear terms like "We expect it to be similar in 40 years," I question whether one can truly look down the road 40 years, when I think of what has just happened in the last decade, with significant findings.

And I would like to say that I don't think there is any safe level of radiation exposure, even your television.

And I guess the biggest thing that I'd like to speak to -- and I kind of dedicate these remarks to a friend of mine who currently is suffering from acute bone marrow leukemia. He and I grew up in Philadelphia together at a time when radium was thought to be -- and radiation was thought to be something really okay for you.

And maybe some of us remember when -- the fluoroscope in the shoe store, and radium rods being stuck

up your nose to cure asthma, and women had their ovaries zapped with radiation because they thought it cured, I don't know, depression or senility or whatever we might be going through now.

And in Germany I think they put radium in chocolate bars. And that was at a time when it was, Ooh, it was this great thing. And until I think it was Stuart -- physician Al Stuart, found out, with a long epidemiological study in England, that x-raying pregnant women, which we would never think of doing today, causes childhood cancers.

Suddenly, the love affair with radium was over, and radiation. And my friend Ed, who suffers leukemia right now, had radium rods stuck up his nose in Philadelphia at the time to help with his asthma.

So that's all to say that perhaps as a doctor's daughter, I think -- and on behalf of many of our members who live in this area, that we think on a cautionary level first and foremost.

And there is so much safeguarding, as the gentleman with the red hair was saying -- that he works at the plant -- that there are so many levels they have to put in place, because this is dangerous stuff we're dealing with. This is extremely dangerous stuff.

And for women especially, there are -- I just had the joy of being with some of these people on a tour of the plant; it was lovely, on the river and everything else. But there -- tritium is something -- it's not only extracted at the Savannah River site, but it is a component, a byproduct of every one of the 140 nuclear power plants currently running in the United States, and they're trying to get licenses to build about 34 to 38 more, most of them in the South, from Virginia through Texas.

This is deadly for women, and I want all the women in the room to know it, that if you choose to be pregnant, once this radioactive hydrogen gets out in the water, it has the ability to cross the placenta, causing miscarriages, birth defects. If you live long enough it is carcinogenic, it's also mutagenic. It can sit on the DNA of the cell. If you happen to be carrying a female fetus, it can affect the eggs of that fetus.

And these are serious radionuclides. I would say that was the key one here. We don't know how to get rid of the waste. And I was just with 70 people in South Carolina, trying to figure out the waste issue across this country. It is unconscionable to me that this industry has been allowed, both nuclear weapons and nuclear power,

to go ahead with no consideration, with the end byproduct, which to me is not just energy which turns on our lights or our hair dryers or whatever, but waste, lethal waste.

And today -- just today I heard on the radio driving here, they delivered tons of papers for a Yucca Mountain license in Nevada, which will probably never be opened. If it were to be opened, it wouldn't be until the year 2020. If it opened in 2010, it would already be filled with only 66 percent of the waste that's now sitting at all of these sites.

Ninety-five percent of all the radioactivity in our country is not necessarily at Savannah River site or the weapons, but in our nuclear reactors and the rods; 95 percent, and it's 104 tinder boxes all over our country.

When are we going to wake up that we have nowhere -- what are we doing to our children and our children's children by leaving this waste, which we have no answer of what to do.

Yucca Mountain, if that doesn't open they're going to look for a second repository, and we know that they're looking in this area, around the Savannah River site in this area.

It's on a earthquake fault. They've spent billions of dollars trying to sell this; we had front page

stories in the news that the data was rigged; they said, make the data work so we can move this ahead. There are all kinds of fines involved with this.

But our government is paying fines now because the industry can't move the waste. There are all these schemes coming up, but it's for these corporate profit quarterly reports, and I find it unconscionable that we're putting this on the backs of our children and our children's children, if they live that long.

And I just don't understand the rush of why you want to push through another 20 years, when there's still so many questions about 3 and 4. Thank you.

MR. ASHLEY: Any additional comments that you'd like to get on the record? We appreciate -- yes, sir.

MR. WHEELER: I'd like to speak up.

MR. ASHLEY: Please come up, sir.

MR. WHEELER: Okay, everybody. Henry Wheeler. I'm a resident of Burke County here. I work in Lowell. I've worked about 15, 20 other nuclear plants. I know ladies that have trouble with their child having asthma and other things. This is a serious thing, we have to do this correctly. They're right.

In this section of history, that's probably the best thing we've got. It's not, by no means, the best

we're ever going to have, like we had coal at one time. So we have to do a really good job to keep this thing under control.

Now, for -- she's talking about radiation getting out, one thing and another. That's the other thing, your cooling tower has probably got Legionnaire's disease; we track it at the salt drip. Now we keep the salt drip off the cooling tower, so this is thousands of things we need to keep up with. But we need to do a good job; we need to make sure the NRC does a good job.

Somebody needs to watch them just like they're watching the nuclear industry. Southern Nuclear's got great plans; I think only one of them has a 1 rating; the other's got 2 rating?

They're not top of the line right now. But to even think about putting two more units here, and I guess I'm just -- I don't think you ought to put more than two in any one place.

Why do you want four units? You know, all you're doing is increasing your chances of something going wrong by another 100 percent, or ever how you want to figure it. Why not move this to somewhere else?

The lady was talking about the county being poor. Zell Miller took our money away from our county to

get re-elected; spent all this money that we should be getting in Burke County in Muscogee County.

So I mean, it's not the nuclear plant's fault that we're still poor; in fact, it's our government's fault. And that's something that, if we're going to allow two more units in here, why don't we make sure we get the money in this county; not let it goes to the rest of the state. We're putting up with all the danger; we should get all the money.

And I thank you.

MR. ASHLEY: Any additional?

MS. VALENTINE: May I ask a question?

MR. ASHLEY: We're taking individuals --

MS. VALENTINE: Okay.

MR. ASHLEY: -- right now, as a matter of fact. Matter of fact, we've already gotten into this question phase. And let's go over a little bit of the ground rules on the questions.

When we're taking questions, as they come up, the only thing we ask is that you stay on topic. This particular meeting is concerning the environmental impact and the request for comments on the Draft Environmental Impact Statement. And other aspects of the power plant operations are covered in other programs; and also within

the safety review of the current license application.

Some areas are not in the scope of license renewal; those areas are emergency planning and security. Other than that, we'll answer all of your questions as much as we can. We do request, though, that I'll tell you if I can bring you a microphone and you can ask the question, but make sure that the transcriber gets it.

MS. VALENTINE: Is the waste stored onsite, for 1 and 2? Is it stored at the site?

MR. ASHLEY: You're talking about the spent fuel?

MS. VALENTINE: Uh-huh.

MR. ASHLEY: Yes. Spent fuel is stored onsite.

MS. VALENTINE: Okay. When the -- when whether or not it's clean is considered, because someone who spoke said there were no CO2 emissions, and I know for a fact that when you're mining and you're milling the uranium to convert to process into plutonium, coal-fired plants are used, and there are a lot of emissions that take place, toxic emissions that take place.

When you're considering the licensing, is it just the power plant that you're considering, or is it the whole uranium coming in and everything? Is all that considered, too? -- because I can't accept that there are

no emissions in the early processes.

I mean, I understand that they're -- it's not occurring on the site at the power plant, but I know that there are those types of -- it's not clean. There are CO2 emissions, it's processed using coal-fired plants. I mean, there are toxins released in the mining process; there are millings.

I just spoke with a lady who was concerned about uranium, and she said that millings were left, and the dust blew into her community, and there was some drilling, and with the NC2 leach type of drilling, that a whole -- the community's water was rendered useless, because it had leaked into the aquifer.

And so I can accept certain statements and comments if they're talking about the plant that we're, you know, on site and all that. But I can't accept comments that it is clean and safe and so forth, and that there are no CO2 emissions, because it's not -- this site is not -- the power plant is not a stand-alone item; it comes from a beginning and it moves to an end.

So I can accept, you know, conversations about what's happening here, but, please, I cannot accept comments like it being safe and clean, period; you know, the industry and so forth.

So there should be -- in any other industry you're required to have truth in advertising, so to speak. So it just -- it grieves me almost that as part of the marketing and so forth that this industry can be said to be not a CO2 emitter, when it is in its early stages in processing and mining and milling, and that it -- you know, it's safe, when whole communities are devastated with some of the processes that take place for the material -- your primary material, which is uranium.

MR. ASHLEY: Ms. Valentine, do you have a question?

MR. BENNER: If I may, I think the question was, is this for just the plant or beyond that. And primarily our environmental impact statement for this license renewal focuses on the impacts directly caused by the plant. But as you have pointed out, there are impacts associated with the entire fuel cycle, and we do some level of assessment of that, of both fuel cycle impacts and transportation of nuclear material impacts.

Now, that's a less detailed review for each individual plant, because the way we've done that is, in our regulations, we've articulated the impact overall, and some of those impacts are apportioned to the operation of this particular plant.

Now, that being said, there are separate licensing and environmental reviews that go on for those portions, but if a fuel manufacturing facility wanted to get licensed, well, they'd need a license from the NRC, and there'd be an environmental impact statement for that, so there would be a much more detailed review then.

Now, for the sorts of things you talked about, when -- if there are releases, if there are contaminations of groundwater, that's really more of an enforcement concern, you know; from an environmental impact standpoint, for a new facility, you don't know what things might happen, so you do best estimates.

In the case of license renewal, we at least have a plant that's been operating for at least 20 years, per our regulations, before they can apply for a renewal. So we have better data to make an analysis. But, you know, the Environmental Impact Statement isn't the end of the NRC's involvement in the operation of any of these.

So we have an oversight program that looks at, you know, operation of the facility. We have inspectors that go out periodically; whenever there's an event, any sort of releases, we have additional inspectors who will go to investigate that.

So those sorts of things will be handled

throughout the life of the plant or whatever facility that is licensed. So regarding the carbon -- you know, is nuclear carbon free? -- in our Environmental Impact Statement, we acknowledge that the nuclear fuel cycle is not carbon free; that there is -- and again, these are estimates, but we presume that for the transportation, for the mining, that the source of energy for that is fossil fuels.

So, now we're trying, as are many government agencies, trying to figure out how to assess global warming concerns in our Environmental Impact Statements. And I think right now our approach is -- and we look at alternatives, energy alternatives, and we're trying to compare the entire fuel cycle for different alternatives and see contributions to greenhouse gases.

But that's an area where the whole federal government is trying to figure out how best to assess environmental impacts.

But getting back to your original question, we acknowledge that there is carbon emissions from parts of the nuclear fuel cycle.

MR. ASHLEY: Thank you, Eric. Appreciate it.

MS. STOCKER: In your earlier presentation -- I'm sorry. My name is Judith Stocker.

In your earlier presentation, you mentioned that the impact of the operation of the two current reactors, as far as the water resources in the area, was small?

But I remember reading a few weeks ago in the *Augusta Chronicle* an article by a gentleman who used to fish the Savannah River and who said that since those two reactors have come on line, the level of the river has gone down so much that the shoals where the sturgeon who used to -- that used to be plentiful in the area, are almost destroyed and they're not breeding, so how does that translate to a small impact?

MR. BENNER: Well, I'll start, and if you want -- we look at the impacts of the actual nuclear power plant. And regarding river levels, there are any number of things that are contributing to either higher or lower river levels. And through, you know, analysis of how much water the plant actually uses compared to the total flow of the river, I think we determined that the -- you know, the river level drop would be no greater than an inch.

So I can't speak to all the things that are causing level drops in the river, but, you know, I think one of the big things in the Southeast right now are drought conditions, that are causing level drops.

And you get to a point where even a power plant that, if the level drops too low, that they aren't allowed to operate, for safety concerns. So they are limited as to the impact they can have.

MS. PAUL: Could you say -- an inch, what? -- per 20 years, per --

MR. BENNER: Forever. It's not -- I mean, once you determine steady state --

MS. PAUL: Right.

MR. BENNER: -- it's an inch. Now, given the level of the river, the flow through the river, that steady state, the steady-state drop would be an inch, forever.

MS. PAUL: So the usage as -- we've heard that if all four reactors come on line, that the amount of usage -- perhaps your friend here has got to address this too -- that it would take out of the river the same amount of water that all the residents of Augusta, Atlanta, and Savannah use in one day, and that two-thirds go up the towers -- the cooling towers in an evaporative process, and one-third goes back into the river. Is that correct?

MR. BENNER: I -- we're not here to really discuss the --

MS. PAUL: All right.

MR. BENNER: -- reactors as far as --

MS. PAUL: Well, I meant if the -- well, it would be double what we have now, so I guess the impact of 1 and 2 would be half that. I guess they are water hogs. You would admit that, maybe. That is the question.

For the whole flow of the river, I don't -- that's kind of hard to understand, the whole flow of the river, for the impact for this region. I've heard that many times, and I guess I'm trying to picture that more for all of us.

MR. BENNER: Picture the flow --

MS. PAUL: The certain percentage, you said, that you found it was minimal compared to the whole flow of the river.

MR. BENNER: Right.

MS. PAUL: And I don't really understand that, in volume.

MR. BENNER: Okay. If the -- well, we have numbers --

MR. BEISSELE: I mean, specific numbers --

MR. ASHLEY: Please use the microphone.

MR. BEISSELE: -- and answer the question specifically -- I mean, without --

MS. PAUL: Right.

MR. BEISSELE: -- to rattle off numbers or the calculation in my head. But if the low flow is, say, 3800 cubic feet per second flow, which is a drought condition, the consumption and use of Units 1 and 2 together is about 1 to 2 percent of that flow. So if you added 3 and 4 to it, which -- and I didn't consider -- say it was twice that --

MS. PAUL: Uh-huh.

MR. BEISSELE: So you get 4 percent of the 7- to 8-, 10-year low-flow calculation. So there's all kinds of calculations and numbers that have been developed in the studies that have been done, but the levels of the river -- the flow into the river are controlled by the U.S. Army Corps of Engineers --

MS. PAUL: Right.

MR. BEISSELE: -- not by the plant. And not -- that's --

MS. PAUL: We're aware of that in Atlanta.

MR. BEISSELE: Yes, I know.

But naturally the consumptive use of the plant is a relatively small percentage of the flow of the river. Now, as far as water levels dropping up and down, I don't think it has anything directly to do with the intake of the plant, but it has to do with the amount of water that

you release from dams and streams.

MS. PAUL: Right. And all of it has impact on the wildlife in the area, of course, or the fish.

MR. BEISSELE: Well, the total use of everybody in the whole state, and all the runoff and everything, I'm sure it does. But I don't think -- the actual impact of the license renewal term on wildlife would be determined to be small for the Environmental Impact Statement. I'm not a biologist, so don't ask me to --

MS. PAUL: Well --

MR. BENNER: And even beyond that, specifically for the sturgeon, we have to consult with -- because it's endangered -- National Marine Fisheries Service and Fish and Wildlife Service, as appropriate. And in this case, the consultation with them also resulted in determining that the impact on the sturgeon was small, from the operation of the plant.

There may be other impacts to the river, and obviously river level going down will result in a loss of habitat. But again you can -- with the agency entrusted with protecting threatened and endangered species, they agreed that the impact of this facility is small.

MS. PAUL: Would that also include the robust red horse fish? Do you have --

MR. BENNER: I think the only aquatic species that we have identified as threatened or endangered was the sturgeon, so --

MS. PAUL: I think that is -- well, my question, although, was when you have to look at alternatives -- and you said that environmental impacts of likely power generation alternatives could reach moderate to large significance in some impact areas, meaning I guess wind, solar, biomass -- it says "et cetera." Do you put those all together, or do you look at them individually? I mean, moderate to large impact compared to wind or solar to nuclear?

MR. BENNER: The moderate to large is a range.

MS. PAUL: Yes.

MR. BENNER: There are several technologies like solar, which right now are not feasible for base-load power; or normally solar could be used as a combination alternative. So I'm not sure, in our combination alternatives that -- do we have solar in that, or do we have wind in that.

MR. LEOUS: Well, to back up a sec, to answer your own question. If I got the question correctly: Yes, we do look at each of these alternatives separately.

MS. PAUL: Yes.

MR. LEOUS: So I mention like the base-load capacity that we look at coal, natural gas, and new nuclear. Each one of those is as much of a formula-based, the life-cycle type of approach, and this is in Chapter 8 of the document --

MS. PAUL: Thank you.

MR. LEOUS: -- and after the meeting we can check it out.

MS. PAUL: That's fine.

MR. LEOUS: But we did get a look at it beforehand where with coal, what would be the land impact, of not only siting the plant, but also getting coal from the ground, transporting it to the plant, after it's burned and turned into coal ash and other materials, what would happen there and the impact.

So we do try to get a life cycle approach.

MS. PAUL: And do you base that on current operations? Do you phase it in 20 years from now and all of that? Do you curve that?

MR. LEOUS: What we do is we basically scale it, say, Okay, so we need to come up with 2300 megawatts of electricity. So if we were going to do that with coal, what size plant would we need to do that; how much coal would we need, you know, a day, a week, a year. What

would be the, you know, kind of inputs and outputs from there. And then it would basically be -- the time period would be, at the end of the operating license for Units 1 and 2.

MS. PAUL: Right.

MR. LEOUS: So to get back to the renewable question, we do look at each one of those renewables, count on their own, as Eric mentioned, so, could we do PV or solar collection; you know, for this area, for 2300 megawatts of base-load capacity.

And, you know, if you look at various sources out there in terms of both industry groups, trade groups, you know, the DOE's energy assessment, and say, Okay, given the conditions on the ground in the Southeast, or in the Georgia area, are these various alternatives feasible?

And as you know Southern Company and the University sponsored an offshore wind study, so we'll look at that data, amongst other things, and basically determined that, as Eric mentioned, for base-load capacity, those are not feasible. However, what we do try to do is say, Okay, even though wind in and of itself can't come up with that, how much wind could we do as a feasible alternative that could also be compared to how much conservation could we do? How much biomass could we

do, how much, you know --

MS. PAUL: Energy efficiency. Other things.

MR. LEOUS: Exactly right. And that's what makes up our combination alternative. Obviously, you know, you can come up with -- even with the permutations in terms of, you know, mixing and matching the numbers and that kind of stuff, at least we come up with one representative that's maybe the most likely scenario, and that's how we do the alternatives analysis.

MS. PAUL: So when you say moderate to large significance, is that harm to the environment? Or is that economic harm, or what is that?

MR. LEOUS: Actually I wouldn't put -- I wouldn't use the word "harm," because we don't really place a value --

MS. PAUL: Impact. I'm sorry.

MR. LEOUS: Well, that's just it, because on the impact on the local economy, you know, that's not for us to say if it's positive or negative, if money comes in or money comes out --

MS. PAUL: Right.

MR. LEOUS: -- so, yes. In some of those instances, the moderate to large impacts are, you know, if we do conservation, that means that jobs aren't going to

be at Plant Vogtle; there's a socioeconomic impact to the area that wouldn't be there.

That being said, some of that, if you use a coal-powered plant, you know, you keep some but not as much as are currently at the plant. So there would be a delta there that we would account for.

Also, siting the facility, regardless of what it is, has an impact -- more of an impact than keeping a current facility on line. Just because you're constructing something, people are moving to construct that here, to operate that. So there's more of an impact on the environment, rather than just leaving the current facility on line. So that's kind of how we quantify that.

MS. PAUL: So the jobs impact -- that environmental or jobs impact, you could also say that then you're charged with looking at possible health impacts, or medical impacts on the other end?

MR. LEOUS: In terms of?

MS. PAUL: The population that's impacted totally by this plant.

MR. LEOUS: For example, like say if -- I'm trying to understand what -- to say for example if there was a coal plant, what would be the health impacts of siting that here? Because --

MS. PAUL: Yes, because I didn't realize you were looking as much at the jobs, and so I was trying to look at the whole cycle: entry, build, jobs, jobs going away, health impacts, people getting older. And that's the whole thing of when you talk about also alternatives, we're talking about 20, 40 years down the line.

The wind portfolios and solar portfolios in this country have gone up, you know, 59 percent, 49 -- some, 70 percent. You know, that's where most people are putting their investments, their personal investments.

And here we have an industry that continues to get huge subsidies from the federal government, not that solar and wind don't; but we're -- you know, to me it's backward. This is a mature industry, that, you know -- and we're talking about security like the Lieberman bill, you know, that's being voted on. There's billions of dollars for this.

MR. LEOUS: Well, and certainly; and that is one of our limitations. And even the DOE in its protections of --

MS. PAUL: Uh-huh.

MR. LEOUS: -- you know, energy needs and current technologies, it's -- you know, it's impossible for us to predict what PV panels are going to look like in

terms of their cost or efficiencies 20 years from now.

MS. PAUL: Right.

MR. LEOUS: So what we do is we look at what's currently now going on in terms of technology and policy, and say -- and basically forecast that forward.

MS. PAUL: Right.

MR. LEOUS: So we're currently limited by not knowing the future, but --

MR. PAUL: Right. Sustainable jobs, I would say. Solar would be more than nuclear. Anyway, thank you for all your --

MR. ASHLEY: J.P., when you used the term PV panels --

MR. LEOUS: Photovoltaic.

MR. ASHLEY: Photovoltaic. Thank you.

Another question?

(No response.)

MR. ASHLEY: Well, we thank you very much for your participation this evening. As J.P. and Eric both pointed out, we do have materials available back here for you; the CD is a good way to take a big document with you. So thank you again very much. Good evening.

MR. BENNER: I just thought of something. I think there was a lot of good discussion here; I think it

just seemed particularly in the area of alternatives that we've tried to get that up, so that's particularly an area where we appreciate feedback and comments.

Until recently we didn't do the combination alternatives, so we really did know -- we would dismiss solar as not being capable of producing base-load power, and, you know, that's worth a discussion in that, you know, now partially because of feedback we've gotten, we look at these combination alternatives.

And like J.P. said, we can't do an infinite number of combinations, but if, through your feedback, you think there's a much more rational combination out there applying for this geographic area, I think we're happy to assess that. So thank you very much.

Have a good evening.

(Whereupon, at 8:30 p.m., the meeting was concluded.)